

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:

Allied Paper/Portage Creek/Kalamazoo  
River Superfund Site  
Allegan and Kalamazoo Counties, Michigan

ADMINISTRATIVE  
SETTLEMENT AGREEMENT  
AND ORDER ON CONSENT  
FOR REMOVAL ACTION

Docket No. V-W- 'U/ -C-863

Respondents:

Millennium Holdings, LLC  
Georgia-Pacific, LLC

Proceeding Under Sections 104,  
106(a), 107 and 122  
of the Comprehensive  
Environmental Response,  
Compensation, and Liability Act,  
as amended, 42 U.S.C. §§ 9604,  
9606(a), 9607 and 9622

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## **I. JURISDICTION AND GENERAL PROVISIONS**

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("U.S. EPA"), the State of Michigan (the "State"), and Respondents. This Settlement Agreement provides for the performance of removal actions by Respondents at or in connection with the Plainwell Impoundment Area, as that term is defined below, of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site, located in Allegan and Kalamazoo Counties, Michigan.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622. This authority has been delegated to the Administrator of the U.S. EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrators by U.S. EPA Delegation Nos. 14-14-A, 14-14-C and 14-14-D, and to the Director, Superfund Division, Region 5, by Regional Delegation Nos. 14-14-A, 14-14-C and 14-14-D.

3. The State enters into this Settlement Agreement pursuant to Section 107 of CERCLA, the authority vested in the MDEQ and MDAG by Section 20134(1) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, ("NREPA"), MCL 324.20101 *et seq.*, and the general authority of the Michigan Attorney General.

4. U.S. EPA, the State, and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.

## **II. PARTIES BOUND**

5. This Settlement Agreement applies to and is binding upon U.S. EPA, the State, and upon Respondents and their successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement, the remaining Respondents shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives comply with this Settlement Agreement. Respondents shall be responsible for any noncompliance with this Settlement Agreement.

### **III. DEFINITIONS**

8. Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "Action Memorandum" shall mean that document executed by Region 5, U.S. EPA on February 14, 2007 to authorize and describe the time-critical response actions to be undertaken at the Plainwell Impoundment Area. The Action Memorandum is incorporated into and made a part of this Agreement as Appendix 1.

b. "Allied Paper Operable Unit #1" or "Allied OU" shall mean that part of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site between Cork and Alcott Streets which is approximately 62 acres in size and includes, but is not limited to, the Monarch and Bryant paper mills, the Bryant Mill Pond Area, the Historic Residual Dewatering Lagoons, the Former Residual Dewatering Lagoons, the Former Type III Landfill, and the Western Disposal Area.

c. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

d. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXXII.

e. "Future Response Costs" shall mean all costs, including direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement on or after the Effective Date.

f. "Georgia-Pacific" shall mean Georgia-Pacific, LLC, its successors and assigns. Georgia-Pacific is the current owner of two mill properties located in Kalamazoo Township, Michigan. Between 1967 and 2000, Georgia-Pacific manufactured paper at one of these facilities, commonly referred to as "the Kalamazoo Mill." Predecessors to Georgia-Pacific produced paper at the Kalamazoo Mill as early as 1899. Georgia-Pacific purchased the second mill property, commonly referred to as the "Hawthorne Mill," in 1976, but never conducted any papermaking activities at this location.

g. "Hazardous Substance" shall mean any substance defined as such under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), or under Part 201 of NREPA, MCL

§ 324.20101, or any hazardous waste within the meaning of Section 1004(5) of RCRA, 42 U.S.C. § 6903(5).

h. "Interest" shall mean interest at the rate specified for interest on investments of the U.S. EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

i. "MDAG" shall mean the Michigan Department of Attorney General, and any successor agency.

j. "MDEQ" shall mean the Michigan Department of Environmental Quality, and any successor agency.

k. "MDNR" shall mean the Michigan Department of Natural Resources, and any successor agency.

l. "MHLLC" shall mean Millennium Holdings, LLC, and its successors and assigns. Between 1955 and 1988 Allied Paper, Inc. owned or operated certain paper manufacturing facilities located in the City of Kalamazoo, Michigan. Until 1986, Allied Paper was a wholly-owned subsidiary of SCM Corporation. In 1986, SCM Corporation was acquired by HM Holdings, Inc., then a wholly-owned subsidiary of Hanson Industries, Inc. In 1996, Hanson Industries underwent a "de-merger." Millennium Chemicals, Inc. was formed, and HM Holdings became its wholly-owned subsidiary. HM Holdings then changed its name to Millennium Holdings, Inc., and later became Millennium Holdings, LLC.

m. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

n. "Part 201 of NREPA" shall mean the Michigan Natural Resources and Environmental Protection Act, 1994 Mich. Pub. Acts 451, MCL §§ 324.20101 *et seq.*

o. "Parties" shall mean U.S. EPA, the State, and Respondents.

p. "Polychlorinated biphenyls" or "PCBs" shall mean the toxic pollutant and hazardous substance designated under Sections 307(a)(1) and 311(b)(2)(A) of the Clean Water Act, 33 U.S.C. §§ 1317(a), 1321(b)(2)(A). PCBs are also a CERCLA hazardous substance. *See* 42 U.S.C. § 9601(14).

q. "Plainwell Impoundment Area" shall mean the submerged sediments, river banks and floodplain soils of the Kalamazoo River system that were previously underwater when the Plainwell Dam was intact and fully operational. The area extends approximately 8000 feet upstream from the Plainwell Dam, and includes approximately

1.5 miles of Kalamazoo River channel, adjacent banks, and approximately 79 acres of floodplains.

r. "Plainwell Impoundment Area Disbursement Special Account" or "Disbursement Special Account" shall mean the disbursement special account established by U.S. EPA in accordance with Subparagraph 39.a of this Settlement Agreement and Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

s. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901 *et seq.* (also known as the Resource Conservation and Recovery Act).

t. "Respondents" shall mean Millennium Holdings, LLC and Georgia-Pacific, LLC.

u. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXXI). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control

v. "Site" shall mean the Allied Paper/Portage Creek/Kalamazoo River Superfund Site, located in Allegan and Kalamazoo Counties, Michigan, as depicted generally on the map attached as Appendix 2.

w. "SOW" shall mean the Statement of Work for Supplemental Remedial Investigations and Feasibility Studies for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site, Attachment A to the Administrative Settlement Agreement and Order on Consent for Supplemental Remedial Investigations and Feasibility Studies, which is being entered into by U.S. EPA and Respondents contemporaneously with this Settlement Agreement.

x. "State" shall mean the MDEQ, MDNR, and MDAG.

y. "State Future Response Costs" shall mean all costs, including direct and indirect costs, that the State incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement on or after the Effective Date. State Future Response Costs shall also include all costs, including direct and indirect costs, incurred since August 28, 2006, but paid after that date.

z. "State Past Response Costs" shall mean those response costs incurred and paid by the State in connection with the Site that are identified in Appendix 3 to this Settlement Agreement as "Amount to be Forgiven." MDEQ represents that there are no outstanding response costs remaining to be invoiced and reimbursed under the 1990 Administrative Order on Consent with Respondents (Final Order No. DFO-ERD-91-001) through the end of 2001.

aa. "U.S. EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

bb. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "hazardous substance" under Part 201 of NREPA.

cc. "Work" shall mean all activities Respondents are required to perform under this Settlement Agreement, including those activities specified in the Work Plan and any modifications to the Work Plan made in accordance with this Settlement Agreement.

dd. "Work Plan" shall mean the document entitled *Former Plainwell Impoundment Area Time-Critical Removal Action Design Report* and attached to this Settlement Agreement as Appendix 4, which specifies those response activities required by U.S. EPA and the MDEQ under this Settlement Agreement. The Work Plan was approved by U.S. EPA on February 14, 2007, and by the MDEQ and MDNR on February 13, 2007. The Work Plan requires submission of a final Health and Safety Plan and includes a final Security Plan, the latter of which has been reviewed by U.S. EPA and the MDEQ. Respondents incorporated all modifications recommended by U.S. EPA and the MDEQ to the draft Security Plan before finalizing that document.

#### **IV. FINDINGS OF FACT**

9. Based on available information, including the Administrative Record in this matter, U.S. EPA and the State find that:

a. On August 30, 1990 and pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, U.S. EPA placed the Site on the NPL by publication in the Federal Register, 55 Fed. Reg. 35502. The Site was listed after routine surface water and biota sampling at the mouth of the Kalamazoo River indicated that PCBs were discharging to Lake Michigan via the Kalamazoo River, and that these PCBs were widely bioavailable.

b. The Michigan Department of Natural Resources first issued a public health advisory regarding PCB contamination from the Site in 1977. The advisory remains in place today, and warns against eating carp, suckers, catfish and largemouth bass from these waters. The advisory warns nursing mothers, pregnant women, women who expect to bear children and children below the age of 15 not to eat certain species of fish from these waters.

c. Respondents are two of several companies located on the Kalamazoo River which, between the mid-1950s and early 1970s, engaged in the recycling of carbonless copy paper. Carbonless copy paper contained invisible spheres of PCB-carrying solvents. As a preparation step in the recycling process, Respondents de-inked their recyclable paper, which included, at various times, carbonless copy paper. The



process of de-inking and/or pulping of carbonless copy paper released PCBs into the resulting waste streams.

d. MHLLC operated two paper mills at the Site: the Monarch Mill and the Bryant Mill. MHLLC operated the Monarch Mill starting in 1955, and installed a clarifier shortly thereafter. MHLLC's predecessor had installed a clarifier at the Bryant Mill in 1954. MHLLC became the owner of the Bryant Mill in 1956. Prior to the installation of clarifiers, wastewater was discharged directly into Portage Creek, an area of the Site upstream from the Plainwell Impoundment Area. After installation of the clarifiers, the supernatant was discharged either to Portage Creek or to the City of Kalamazoo wastewater treatment facility.

e. MHLLC ceased de-inking operations at the Monarch Mill in 1958 and closed the mill in 1980. Deinking operations were discontinued at the Bryant Mill in 1971. MHLLC sold the Bryant Mill in 1988.

f. Georgia-Pacific purchased the Kalamazoo Mill in 1967. Predecessors to Georgia-Pacific produced paper at the Kalamazoo Mill as early as 1899. As part of their papermaking processes at the Kalamazoo Mill, Georgia-Pacific and its predecessors at the Kalamazoo Mill recycled some waste paper, including carbonless copy paper.

g. Georgia-Pacific's predecessor at the Kalamazoo Mill installed a clarifier in 1954. Prior to the installation of the clarifier, wastewater was discharged directly into the Kalamazoo River upstream of the Plainwell Impoundment Area. Overflow from the clarifier went to the Kalamazoo River, while underflow was pumped to adjacent lagoons. Beginning in 1964, the clarifier's effluent was sent to the City of Kalamazoo wastewater treatment plant for secondary treatment. Supernatant from the lagoons was returned to the clarifier. In 1977, Georgia-Pacific updated its waste treatment system, and installed a new primary clarifier.

h. Georgia-Pacific ceased de-inking operations at the Kalamazoo Mill and closed the mill in 2000.

i. PCBs discharged in the wastes from Respondents' papermaking operations have come to be located in sediments, river banks and floodplain soils of the Plainwell Impoundment Area.

j. The Plainwell Dam currently impounds approximately 77,000 cubic yards of submerged sediments. PCBs have been detected in the submerged sediments of the Plainwell Impoundment Area at concentrations ranging from non-detect to 220 parts per million ("ppm").

k. PCB concentrations in the river banks located at the Plainwell Impoundment Area range from non-detect to 120 ppm.

l. PCB concentrations in the floodplain soils of the Plainwell Impoundment Area range from non-detect to 158 ppm.

m. Between November of 2004 and January 2007, U.S. EPA, the State, Respondents, and other federal agencies participated in a facilitated mediation to resolve issues in controversy at the Site.

n. As a result of the mediation, Respondents agreed to conduct a removal action to address the imminent and substantial endangerment to human health and the environment presented by the presence of PCB-contaminated materials in the Plainwell Impoundment Area.

o. As a result of the mediation, U.S. EPA Region 5 agreed to request approval from U.S. EPA's Office of Site Remediation Enforcement to disburse \$1 million from the Kalamazoo River Special Account to the Respondents as partial reimbursement for the response actions to be conducted pursuant to this Settlement Agreement. Region 5 received prior written approval for the disbursement on September 18, 2006.

p. As a result of the mediation, the MDEQ agreed to forgive the State Past Response Costs and the MDNR agreed to disburse \$500,000 to the Respondents as partial reimbursement for the response actions to be conducted pursuant to this Settlement Agreement. MDNR further agreed to assume the post-removal site control obligations as set forth in Paragraphs 18 and 43.c.

q. On February 14, 2007, Region 5 executed an Action Memorandum which identified the dredging and excavation of PCB-contaminated bank soils, floodplain soils and sediments in the Plainwell Impoundment Area, and placement of the dredged or excavated material into landfills already located at the Allied OU, as the appropriate response action to be taken at the Plainwell Impoundment Area. Region 5 determined that this response action was necessary to address a significant source of PCB-contamination to the Kalamazoo River and Lake Michigan. In the Action Memorandum, attached to and made a part of this Settlement Agreement as Appendix 1, Region 5 decided that the response action should be conducted as a time-critical removal action pursuant to 40 C.F.R. § 300.415.

r. Contemporaneously with the execution of this Settlement Agreement, Respondents have entered into an administrative settlement to supplement the Remedial Investigation/Feasibility Study conducted to date for, *inter alia*, the Kalamazoo River Operable Unit of the Site. Subsequent to completion of the response actions required by this Settlement Agreement and supplemental RI/FS activities, U.S. EPA will propose a final remedy for the first reach of the Kalamazoo River Operable Unit #5 of the Site (i.e. Morrow Dam to Plainwell Dam). U.S. EPA's proposed plan for the first reach will identify any response actions that U.S. EPA determines are necessary to address unacceptable risks to human health and the environment presented by the presence of PCB-contaminated sediments, river banks and floodplain soils remaining within the Plainwell Impoundment Area after completion of the removal action conducted pursuant to this Settlement Agreement.

s. Subsequent to completion of the RI/FS for the Allied OU, U.S. EPA will issue a proposed plan for the final remedy for that portion of the Site. The Allied OU final remedy is likely to include, but may not be limited to, final response actions selected for those areas at which PCB-contaminated material from the Plainwell Impoundment Area will be placed during and after the removal action required by this Settlement Agreement. Before permanent disposal of any dredged or excavated material with PCB concentrations exceeding 50 ppm can occur at the Allied OU, Region 5 will need to consider the appropriateness of a TSCA approval for risk-based disposal pursuant to 40 C.F.R. § 761.61(c). Region 5 has granted such approvals for the 12<sup>th</sup> St. Landfill, Operable Unit #4 at the Site, and the A-Site Landfill, a part of Operable Unit #2 at the Site and portions of the Allied OU, Operable Unit #1. Region 5 has committed to coordination between the Superfund and TSCA programs with respect to the remainder of the Allied OU.

## **V. CONCLUSIONS OF LAW AND DETERMINATIONS**

10. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, U.S. EPA and the MDEQ have determined that:

a. The Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9). The Plainwell Impoundment Area is a portion of the Site at which hazardous substances have come to be located, and from which hazardous substances have been released and threaten to be released.

b. The contamination found at the Plainwell Impoundment Area, as identified in the Findings of Fact above, includes a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Each Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Each Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is therefore jointly and severally liable for response costs incurred and to be incurred at or in connection with the Plainwell Impoundment Area.

e. The unsecured presence of PCB-contaminated soils and sediments at the Plainwell Impoundment Area constitutes an actual or threatened "release" of a hazardous substance from the facility into the "environment" as defined by Sections 101(8) and 101(22) of CERCLA, 42 U.S.C. §§ 9601(8) and 9601(22).

f. As set forth in the Action Memorandum, which is attached as Appendix 1 to this Settlement Agreement, the conditions present at the Plainwell Impoundment Area constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

i. actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants. This factor is present at the Plainwell Impoundment Area due to the presence of PCBs in Kalamazoo River fish in concentrations that create unacceptable health risks to both human and ecological receptors.

ii. high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate. This factor is present at the Plainwell Impoundment Area due to the existence of PCBs in high concentrations near the surface of the river banks, sediments and floodplain soils, that may migrate as a result of erosion and scouring from the Kalamazoo River.

iii. weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released. This factor is present at the Plainwell Impoundment Area due to the potential for ice movement in late winter to increase scouring of the river banks or river bottom. Additionally, heavy rains and flooding in spring and summer add to stream volume and velocity, and result in additional scouring of PCB-contaminated river banks, sediments and floodplain soils.

iv. the unavailability of other appropriate federal or state response mechanisms to respond to the release. This factor is present because no other federal, state or local agency is prepared to address the PCB contamination in the Plainwell Impoundment Area at this time.

g. The removal action required by this Settlement Agreement is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

## **VI. SETTLEMENT AGREEMENT AND ORDER**

Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

## **VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATORS, AND ON-SCENE COORDINATOR**

11. Respondents shall retain one or more contractors to perform the Work and shall notify U.S. EPA, MDEQ, and MDNR of the name(s) and qualifications of such contractor(s) within 5 business days of the Effective Date. Respondents shall also notify U.S. EPA, MDEQ, and MDNR of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 5 business days prior to commencement of such Work. U.S. EPA, after consultation with MDEQ, retains the right to disapprove of any or all of the

contractors and/or subcontractors retained by Respondents. If U.S. EPA disapproves of a selected contractor, Respondents shall retain a different contractor and shall notify U.S. EPA, MDEQ, and MDNR of that contractor's name and qualifications within 3 business days of U.S. EPA's disapproval. The contractor must demonstrate compliance with ANSI/ASQC E-4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared consistent with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B0-1/002), or equivalent documentation as required by U.S. EPA.

12. U.S. EPA has designated Sam Borries of the Emergency Response Branch, Region 5, as its On-Scene Coordinator ("OSC"). The MDEQ has designated Paul Bucholtz of its Remediation and Redevelopment Division, Superfund Section as its Project Coordinator. The MDNR has designated Sharon Hanshue of its Fisheries Division as its Project Coordinator. Within 5 business days after the Effective Date, Respondents shall designate a Project Coordinator, who shall be responsible for administration of all actions by Respondents required by this Settlement Agreement, and shall submit to U.S. EPA, MDEQ and the MDNR the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. U.S. EPA, after consultation with the MDEQ, retains the right to disapprove of the designated Project Coordinator. If U.S. EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify U.S. EPA, MDEQ, and MDNR of that person's name, address, telephone number, and qualifications within 4 business days following U.S. EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from U.S. EPA, MDEQ, or MDNR relating to this Settlement Agreement shall constitute receipt by all Respondents.

13. Notices and Submissions. Unless otherwise provided in this Settlement Agreement, whenever notice is required to be given or a document is required to be sent by one Party to another, it will be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing.

As to the U.S. EPA Regional Financial Management Officer:

Chief  
Superfund Program Accounting and Analysis Section  
United States Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd. ML-10C  
Chicago, IL 60604

**As to U.S. EPA until issuance of Notice of Completion of Work pursuant to Paragraph 77:**

**Samuel Borries  
On-Scene Coordinator  
United States Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd. Mail Code SE-5J  
Chicago, IL 60604**

**As to U.S. EPA for three years subsequent to issuance of Notice of Completion of Work pursuant to Paragraph 77:**

**Samuel Borries  
On-Scene Coordinator  
United States Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd. Mail Code SE-5J  
Chicago, IL 60604**

**and**

**Shari Kolak  
Remedial Project Manager  
United States Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd. Mail Code S-6J  
Chicago, IL 60604**

**As to U.S. EPA after three years subsequent to issuance of Notice of Completion of Work pursuant to Paragraph 77:**

**Shari Kolak  
Remedial Project Manager  
United States Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd. Mail Code S-6J  
Chicago, IL 60604**

**As to the MDEQ:**

**Paul Bucholtz  
Michigan Department of Environmental Quality  
Remediation and Redevelopment Division, Superfund Section  
P.O. Box 30426  
Lansing, Michigan 48909-7926**

If via courier:  
Michigan Department of Environmental Quality  
Remediation and Redevelopment Division, Superfund Section  
525 West Allegan Street  
Lansing, MI 48933-2125

As to the MDNR:

Sharon Hanshue  
Michigan Department of Natural Resources  
Fisheries Division  
P.O. Box 30446  
Lansing, MI 48909-7946

If via courier:  
Michigan Department of Natural Resources  
Fisheries Division  
530 West Allegan Street  
Lansing, MI 48933

As to MHLIC and Georgia-Pacific:

Stephen Garbaciak, Jr., PE  
Vice-President  
ARCADIS U.S. Inc.  
30 W. Monroe Street, Suite 1710  
Chicago, IL 60603

14. U.S. EPA, MDEQ, MDNR, and Respondents shall have the right, subject to Paragraph 12, to change their respective designated OSC or Project Coordinator. U.S. EPA, MDEQ, MDNR, or Respondents shall notify each of the other Parties as early as possible before such a change is made, but in no case less than 24 hours before such a change. The initial notification may be made orally but it shall be promptly followed by a written notice.

**VIII. WORK TO BE PERFORMED**

15. Respondents shall perform all actions necessary to implement the Work Plan and comply with this Settlement Agreement. The actions to be implemented generally include the following:

- a. removal of portions of the Plainwell Dam in accordance with the Work Plan;
- b. excavation and/or dredging of submerged sediments, river banks and floodplain soils in the Plainwell Impoundment Area in accordance with the performance standards and at the locations specified in the Action Memorandum and the Work Plan;

- c. cut-back and stabilization of river banks;
- d. disposal of all PCB contaminated material identified for removal in the Action Memorandum and the Work Plan into existing landfills at the Allied OU;
- e. the use of excavated clean soils as cover;
- f. re-vegetation of excavated floodplain areas, as specified in the Work Plan;
- g. monitoring during the implementation of the Work and for three years subsequent to receipt of U.S. EPA's Notice of Completion of Work pursuant to Paragraph 77; and
- h. an on-Site inspection of the status and condition of excavated and stabilized and/or revegetated areas of river banks and floodplains in the Plainwell Impoundment Area with representatives from U.S. EPA and MDNR present, to take place no more than 60 days prior to the third anniversary date of MDNR's receipt of the Notice of Completion of Work pursuant to Paragraph 77.

**16. Work Plan and Implementation.**

- a. Respondents shall implement the Work Plan as approved by U.S. EPA, MDEQ, and MDNR in accordance with the schedule in the Work Plan. The Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement.
- b. Respondent shall not commence any Work except in conformance with the terms of this Settlement Agreement and the approved Work Plan schedule.
- c. Respondents shall implement the Health and Safety Plan and the Security Plan during the pendency of the removal action.

**17. Quality Assurance and Sampling.**

- a. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate U.S. EPA guidance. Respondents shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990) and the MDEQ Remediation and Redevelopment Division's Operational Memorandum No. 2, Sampling and Analysis Guidance, dated October 22, 2004 or any MDEQ documents that supersede or amend Operational Memorandum No. 2 as guidance for QA/QC and sampling. In the event of any conflict between the U.S. EPA guidance and MDEQ guidance identified above, Respondents shall follow the specified U.S. EPA guidance. Respondents shall



only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by U.S. EPA. U.S. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements.

b. Upon request by U.S. EPA or the MDEQ, Respondents shall have such a laboratory analyze samples submitted by U.S. EPA or the MDEQ for QA monitoring. Respondents shall provide to U.S. EPA and the MDEQ the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by U.S. EPA or the MDEQ, Respondents shall allow U.S. EPA, the MDEQ or their authorized representatives to take split and/or duplicate samples. Respondents shall notify U.S. EPA and the MDEQ not less than 3 business days in advance of any sample collection activity, unless shorter notice is agreed to by U.S. EPA and the MDEQ. U.S. EPA and the MDEQ shall have the right to take any additional samples that U.S. EPA or the MDEQ deems necessary. Upon request, U.S. EPA and the MDEQ shall allow Respondents to take split or duplicate samples of any samples taken as part of their oversight of Respondents' implementation of the Work.

d. Within 45 days of the Effective Date, Respondents shall submit to U.S. EPA for approval, after a reasonable opportunity for review and comment by MDEQ, a Quality Assurance Project Plan ("QAPP"). Respondents shall use quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance and monitoring samples in accordance with "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operation," (EPA QA/R5) (EPA/240/B-01/003, March 2001); "Guidance for Quality Assurance Project Plans (QA/G5)" (EPA/600/R-98/018, February 1998), and subsequent amendments to such guidelines upon notification by U.S. EPA to Respondents of such amendment. Amended guidelines shall apply only to procedures conducted after such notification.

18. Post-Removal Site Control. Upon the third anniversary date of MDNR's receipt of the Notice of Completion of Work pursuant to Paragraph 77, MDNR agrees to perform the post-removal site control activities described in Section 5.6.2 through 5.6.5 of the Work Plan. With regard to the reporting requirements of Section 5.6.5 of the Work Plan, MDNR shall submit the required report annually until such time that U.S. EPA and MDNR agree that the banks addressed in the removal action required by this Settlement Agreement are sufficiently stabilized, and the vegetation sufficiently restored, such that no further annual reporting is necessary. After U.S. EPA and MDNR so agree, MDNR shall submit a report to U.S. EPA only in those years when a significant change has occurred in the condition of the vegetation or banks within the Plainwell Impoundment, and/or when MDNR has taken a significant action to address a change in the condition of the vegetation or banks within the Plainwell Impoundment.

**19. Reporting.**

a. Respondents shall submit a written progress report to U.S. EPA, MDEQ, and the MDNR concerning actions undertaken pursuant to this Settlement Agreement every 15th day of the month starting with the second month after the Effective Date until termination of this Settlement Agreement, unless otherwise directed in writing by the OSC after consultation with MDEQ. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondents shall submit to U.S. EPA, MDEQ, and MDNR three copies of all plans, reports or other submissions required by this Settlement Agreement or the Work Plan. Upon request by U.S. EPA, MDEQ, or MDNR, Respondents shall submit such documents in electronic form.

c. If a Respondent owns real property at the Site where Work related to this Settlement Agreement will be performed, such Respondent shall, at least 30 days prior to the conveyance of any interest in such property, give written notice to the transferee that the property is subject to this Settlement Agreement, and written notice to U.S. EPA and the MDEQ of the proposed conveyance, including the name and address of the transferee. Respondents also agree to require that their successors provide the same notice to U.S. EPA, the MDEQ, and to any subsequent transferee that is required of Respondents in the immediately preceding sentence. Respondents further agree to require their successors to comply with Sections IX (Site Access) and X (Access to Information).

**20. Final Report.** Within 60 calendar days after completion of all Work required by Section VIII of this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, *e.g.*, post-removal site controls, payment of Future Response Costs and State Future Response Costs, and record retention, Respondents shall submit for U.S. EPA, MDEQ, and MDNR review, a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and with the guidance set forth in "Superfund Removal Procedures: Removal Response Reporting – POLREPS and OSC Reports" (OSWER Directive No. 9360.3-03, June 1, 1994). The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (*e.g.*, manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

21. Off-Site Shipments.

a. Respondents shall, prior to any off-Site shipment of Waste Material from the Plainwell Impoundment Area to an out-of-State waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state, to the OSC, and to MDEQ. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

b. Respondents shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

c. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the removal action. Respondents shall provide the information required by Paragraphs 21.a and 21.b as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

d. Before shipping any hazardous substances, pollutants, or contaminants from the Plainwell Impoundment Area to an off-Site location, Respondents shall obtain U.S. EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Plainwell Impoundment Area to an off-Site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence. For purposes of this Agreement, the Allied Operable Unit is not considered an "off-Site" location.

**IX. SITE ACCESS**

22. Where any action under this Settlement Agreement is to be performed in areas owned by a Respondent, such Respondent shall, commencing on the Effective Date, provide U.S. EPA, MDEQ, and the MDNR, and their representatives, including contractors, with access at all reasonable times to such property for the purpose of conducting any activity related to this Settlement Agreement. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of the MDNR, the MDNR shall, commencing on the Effective

Date, provide U.S. EPA, MDEQ, and Respondents, and their representatives, including contractors, with access at all reasonable times to such property for the purpose of conducting any activity related to this Settlement Agreement.

23. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondents or MDNR, Respondents shall use their best efforts to obtain all necessary access agreements within 30 business days after the Effective Date, or as otherwise specified in writing by the OSC. Respondents shall immediately notify U.S. EPA, MDEQ, and MDNR if, after using their best efforts, they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access, provided, however, that Respondents shall not be required to pay sums of money for access to another potentially responsible party whose potential liability for response costs and response actions at the Site is based on a theory of liability other than current owner/operator status under 42 U.S.C. § 9607(a)(1). Respondents shall describe in writing their efforts to obtain access. U.S. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as U.S. EPA deems appropriate. Respondents shall reimburse U.S. EPA for all costs and attorneys' fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XV (Payment of Response Costs).

24. Notwithstanding any provision of this Settlement Agreement, U.S. EPA and the MDEQ retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

#### **X. ACCESS TO INFORMATION**

25. Respondents shall provide to U.S. EPA and MDEQ, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Plainwell Impoundment Area or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to U.S. EPA and to the MDEQ, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

26. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to U.S. EPA or to the MDEQ under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b), and, with respect to documents or information submitted to the MDEQ, Section 20117(10) of Part 201, MCL 324.20117(10). Documents or information determined to be confidential by U.S. EPA or the MDEQ will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B and/or MCL 324.20117(10), as applicable. If no claim of confidentiality accompanies documents or information when they are submitted to U.S. EPA or MDEQ, or if U.S. EPA or MDEQ has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, 40 C.F.R.

Part 2, Subpart B, or MCL 324.20117(10), as applicable, the public may be given access to such documents or information without further notice to Respondents. Documents or information generated under this Settlement Agreement shall not be subject to Part 148, Environmental Audit Privilege and Immunity, of the NREPA, MCL 324.14801 *et seq.*

27. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide U.S. EPA and the MDEQ with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

28. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Plainwell Impoundment Area.

## **XI. RECORD RETENTION**

29. Until 6 years after Respondents' receipt of U.S. EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), each Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Plainwell Impoundment Area, regardless of any corporate retention policy to the contrary. Until 6 years after Respondents' receipt of U.S. EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), Respondents shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

30. At the conclusion of this document retention period, Respondents shall notify U.S. EPA and the MDEQ at least 60 days prior to the destruction of any such records or documents, and, upon request by U.S. EPA and/or the MDEQ, Respondents shall deliver any such records or documents to the requestor(s). Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law or state law. If Respondents assert such a privilege, they shall provide the requestor with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created

or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

31. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by U.S. EPA or the MDEQ or the filing of suit against it regarding the Site and that it has fully complied and will fully comply with any and all U.S. EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

## **XII. COMPLIANCE WITH OTHER LAWS**

32. Respondents shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by U.S. EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements under federal environmental or state environmental or facility siting laws.

## **XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES**

33. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Response Branch, Region 5 at (312) 353-2318, of the incident or Site conditions. The Respondents shall also immediately notify the MDEQ Project Coordinator, or in the event of his/her unavailability, the Pollution Emergency Alerting System (PEAS) at (800) 292- 4706 (within Michigan) or 1-517-373-7660 (outside of Michigan). In the event that Respondents fail to take appropriate response action as required by this Paragraph, and U.S. EPA takes such action instead, Respondents shall reimburse U.S. EPA all costs of the response action not inconsistent with the NCP pursuant to Section XV (Payment of Response Costs).

34. In addition, in the event of any release of a Hazardous Substance from the Site, Respondents shall immediately notify the OSC at (312) 353-2318 and the National Response Center at (800) 424-8802. Respondents shall submit a written report to U.S. EPA and to the MDEQ within 7 business days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in

addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004 *et seq.*

#### **XIV. AUTHORITY OF ON-SCENE COORDINATOR**

35. The OSC shall be responsible for overseeing Respondents' implementation of this Settlement Agreement. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

#### **XV. PAYMENT OF RESPONSE COSTS**

36. Payments of Future Response Costs incurred by U.S. EPA.

a. Subject to the Reservations of Rights by U.S. EPA provided in Section XXI, Respondents shall pay Future Response Costs not inconsistent with the NCP as follows: U.S. EPA shall bill and Respondents shall pay Future Response Costs in an amount not to exceed \$300,000 during the first year subsequent to the Effective Date of this Settlement Agreement. For each year after the first anniversary date of this Settlement Agreement, U.S. EPA shall bill and Respondents shall pay Future Response Costs in an amount not to exceed \$325,000, provided, however, that in any year subsequent to the Effective Date, U.S. EPA shall bill and Respondents shall pay all Future Response Costs incurred by U.S. EPA to secure access for performance of the Work from any potentially responsible party, and any sums billed and paid to secure such access shall not be included in the \$300,000 and \$325,000 figures specified above. U.S. EPA does not currently anticipate that Future Response Costs shall exceed the amounts to be billed and paid under the terms of this Settlement Agreement. In the event that U.S. EPA incurs Future Response Costs that are not billed under this Paragraph, it is U.S. EPA's present intent, consistent with its usual practice and in its unreviewable discretion, first to attempt to reach agreement with non-settling parties, and/or newly identified responsible parties, for payment of the additional Future Response Costs. On a periodic basis (at least annually), U.S. EPA will send Respondents a bill requiring payment that consists of an Itemized Cost Summary. Respondents shall make all payments within 30 calendar days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 38 of this Settlement Agreement, according to the following procedures.

i. If the payment amount demanded in the bill is for \$10,000 or greater, payment shall be made to U.S. EPA by Electronics Funds Transfer ("EFT") in accordance with current EFT procedures to be provided to Respondents by U.S. EPA Region 5. Payment shall be accompanied by a statement identifying the name and address of the party(ies) making payment, the Site name, U.S. EPA Region 5, the "Plainwell Impoundment Time-Critical Removal Action" designation, the Site/Spill ID Number 059B, and the U.S. EPA docket number for this action.

ii. If the amount demanded in the bill is \$10,000 or less, Respondents may in lieu of the procedures in Subparagraph 36.a.i make all payments required by this Paragraph by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party(ies) making the payment, and the EPA Site/Spill ID Number 059B. Settling Respondents shall send the check(s) to:

U.S. Environmental Protection Agency, Region 5  
Superfund Program Accounting & Analysis Section  
P.O. Box 371531  
Pittsburgh, PA 15251-7531

b. At the time of payment, Respondents shall send notice that payment has been made to the Director, Superfund Division, U.S. EPA Region 5, 77 West Jackson Blvd., Chicago, Illinois, 60604-3590 and to Eileen L. Furey, Associate Regional Counsel, 77 West Jackson Boulevard, C-14J, Chicago, Illinois, 60604-3590.

c. The total amount to be paid by Respondents pursuant to Paragraph 36.a shall be deposited in the Kalamazoo River Special Account within the U.S. EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by U.S. EPA to the U.S. EPA Hazardous Substance Superfund.

37. In the event that the payments for Future Response Costs are not made within 30 days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XVIII.

38. Respondents may dispute all or part of a bill for Future Response Costs submitted under this Settlement Agreement, only if Respondents allege that U.S. EPA has made an accounting error, or if Respondents allege that a cost item is inconsistent with the NCP. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondents shall pay the full amount of the uncontested costs to U.S. EPA as specified in Paragraph 36 on or before the due date. Within the same time period, Respondents shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondents shall simultaneously transmit a copy of both checks to the persons listed in Paragraph 36.b above. Respondents shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within 20 calendar days after the dispute is resolved.



39. Disbursement of Special Account Funds

a. Creation of Plainwell Impoundment Area Disbursement Special Account and Agreement to Disburse Funds to Respondents. Within 30 days after the Effective Date, U.S. EPA shall establish a new special account, the Plainwell Impoundment Disbursement Special Account, within the U.S. EPA Hazardous Substance Superfund and shall transfer \$1 million from the Kalamazoo River Special Account to the Plainwell Impoundment Disbursement Special Account. Subject to the terms and conditions set forth in this Paragraph, U.S. EPA agrees to make the funds in the Plainwell Impoundment Area Disbursement Special Account, including Interest Earned on the funds in the Plainwell Impoundment Area Disbursement Special Account, available for disbursement to Respondents as partial reimbursement for performance of the Work under this Settlement Agreement. U.S. EPA shall disburse funds from the Plainwell Impoundment Area Disbursement Special Account to Respondents in accordance with the procedures and milestones for phased disbursement set forth in this Paragraph.

b. Timing, Amount and Method of Disbursing Funds from the Plainwell Impoundment Area Disbursement Special Account. Within 60 days of U.S. EPA's receipt of a Cost Summary and Certification, as defined by Subparagraph 39.c.i. or, if U.S. EPA has requested additional information under Subparagraph 39.c.i. or a revised Cost Summary and Certification under Subparagraph 39.c.ii, within 60 days of receipt of the additional information or revised Cost Summary and Certification, and subject to the conditions set forth in this Section, U.S. EPA shall disburse the funds from the Plainwell Impoundment Disbursement Special Account at the completion of the following milestones, and in the amounts set forth below:

Disbursement of Funds

- |   |   |
|---|---|
| 1. U.S. EPA written notice that all Work associated with mobilization has been completed                                | \$200,000 of the funds in the Plainwell Impoundment Area Disbursement Special Account |
| 2. U.S. EPA written notice that all Work associated with the first year of construction has been completed successfully | \$300,000 of the funds in the Plainwell Impoundment Area Disbursement Special Account |
| 3. EPA Notice of Completion of the Work   | \$500,000 of the funds in the Plainwell Impoundment Area Disbursement Special Account |

U.S. EPA shall disburse the funds from the Plainwell Impoundment Area Disbursement Special Account to Respondents by electronic funds transfer per the following instructions:

Bank: Wachovia Bank  
ABA#: 031-201-467  
Beneficiary: Drinker Biddle & Reath LLP Escrow Agent  
Account #: 20-14104-743-189  
Reference: Kalamazoo Disbursement Fund

c. Requests for Disbursement of Special Account Funds. Within 30 days of issuance of U.S. EPA's written confirmation that a milestone of the Work, as defined in Subparagraph 39.b, has been satisfactorily completed, Respondents shall submit to U.S. EPA a Cost Summary and Certification, as defined in Subparagraph 39.c.i, covering the Work performed pursuant to this Settlement Agreement up to the date of completion of that milestone. Respondents shall not include in any submission costs included in a previous Cost Summary and Certification following completion of an earlier milestone of the Work if those costs have been previously reimbursed pursuant to Subparagraph 39.b.

i. Each Cost Summary and Certification shall include a complete and accurate written cost summary and certification of the necessary costs incurred and paid by Respondents for the Work covered by the particular submission, excluding costs not eligible for disbursement under Subparagraph 39.d. Each Cost Summary and Certification shall contain the following certification statement signed by the Chief Financial Officer of Georgia-Pacific:

To the best of my knowledge, after thorough investigation and review of Respondents' documentation of costs incurred and paid for Work performed pursuant to this Settlement Agreement [~~insert, as appropriate,~~ "up to the date of completion of milestone 1," "between the date of completion of milestone 1 and the date of completion of milestone 2," "between the date of completion of milestone 2 and the date of completion of the milestone 3,"] I certify that the information contained in or accompanying this submittal is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

The Chief Financial Officer shall also provide U.S. EPA a list of the documents that he or she reviewed in support of the Cost Summary and Certification. Upon request by U.S. EPA, Respondents shall submit to U.S. EPA any additional information that U.S. EPA deems necessary for its review and approval of a Cost Summary and Certification.

ii. If U.S. EPA finds that a Cost Summary and Certification includes a mathematical accounting error, costs excluded under Subparagraph 39.d, costs that are inadequately documented, or costs submitted in a prior Cost Summary and Certification, it will notify Respondents and provide an opportunity to cure

the deficiency by submitting a revised Cost Summary and Certification. If Respondents fail to cure the deficiency within 14 days after being notified of, and given the opportunity to cure, the deficiency, U.S. EPA will recalculate Respondents' costs eligible for disbursement for that submission, and disburse the corrected amount to Respondents in accordance with the procedures in Subparagraph 39.b. Respondents may dispute U.S. EPA's recalculation under this Subparagraph pursuant to Section XVI (Dispute Resolution). In no event shall Respondents be disbursed funds from the Plainwell Impoundment Area Disbursement Special Account in excess of amounts properly documented in a Cost Summary and Certification accepted or modified by U.S. EPA.

d. Costs Excluded from Disbursement. The following costs are excluded from, and shall not be sought by Respondents for, disbursement from the Plainwell Impoundment Area Disbursement Special Account: (a) Future Response Costs or State Future Response Costs; (b) any other payments made by Respondents to the United States or to the State pursuant to this Settlement Agreement, including, but not limited to, any interest or stipulated penalties paid pursuant to Section XVIII; (c) attorneys' fees and costs, except for reasonable attorneys' fees and costs necessarily related to obtaining access as required by Section IX; (d) costs of any response activities Respondents perform that are not required under, or approved by U.S. EPA pursuant to, this Settlement Agreement; (e) costs related to Respondents' litigation, settlement, development of potential contribution claims or identification of other potentially responsible parties; (f) internal costs of Respondents, including but not limited to, salaries, travel, or in-kind services, except for those costs that represent the work of employees of Respondents directly performing the Work; (g) any costs incurred by Respondents prior to the Effective Date, except for those costs that represent work performed to develop the Work Plan; or (h) any costs incurred by Respondents pursuant to Section XVI or Paragraph 42 (Dispute Resolution).

e. Termination of Disbursements from the Special Account. U.S. EPA's obligation to disburse funds from the Plainwell Impoundment Area Disbursement Special Account under this Settlement Agreement shall terminate upon U.S. EPA's determination that Respondents: (a) have knowingly submitted a materially false or misleading Cost Summary and Certification; (b) have submitted a materially inaccurate or incomplete Cost Summary and Certification, and have failed to correct the materially inaccurate or incomplete Cost Summary and Certification within 14 days after being notified of, and given the opportunity to cure, the deficiency; or (c) failed to submit a Cost Summary and Certification as required by Subparagraph 39.c within 30 days (or such longer period as U.S. EPA agrees) after being notified that U.S. EPA intends to terminate its obligation to make disbursements pursuant to this Paragraph because of Respondents' failure to submit the Cost Summary and Certification as required by Subparagraph 39.c. U.S. EPA's obligation to disburse funds from the Plainwell Impoundment Area Disbursement Special Account shall also terminate upon U.S. EPA's assumption of performance of any portion of the Work pursuant to Paragraph 58, when such assumption of performance of the Work is not challenged by Respondents or, if challenged, is upheld under Section XVI

(Dispute Resolution). Respondents may dispute U.S. EPA's termination of special account disbursements under Section XVI (Dispute Resolution).

f. Recapture of Special Account Disbursements. Upon termination of disbursements from the Plainwell Impoundment Area Disbursement Special Account under Subparagraph 39.e, if U.S. EPA has previously disbursed funds from the Plainwell Impoundment Area Disbursement Special Account for activities specifically related to the reason for termination (e.g., discovery of a materially false or misleading submission after disbursement of funds based on that submission), U.S. EPA shall submit a bill to Respondents for those amounts already disbursed from the Plainwell Impoundment Area Disbursement Special Account specifically related to the reason for termination, plus interest on that amount covering the period from the date of disbursement of the funds by U.S. EPA to the date of repayment of the funds by Respondents. Within 14 days of receipt of U.S. EPA's bill, Respondents shall reimburse the Hazardous Substance Superfund for the total amount billed by a certified or cashier's check or checks made payable to "U.S. EPA Hazardous Substance Superfund," referencing the name and address of the party making payment, EPA Site/Spill Identification Number 059B, the "Plainwell Impoundment Area Removal Action," and the U.S. EPA docket number for this action. Respondents shall send the check(s) to:

U.S. Environmental Protection Agency, Region 5  
Superfund Program Accounting & Analysis Section  
P.O. Box 371531  
Pittsburgh, PA 15251-7531

At the time of payment, Respondents shall send notice that payment has been made to U.S. EPA and to the Regional Financial Management Officer, in accordance with Paragraph 13 (Notices and Submissions). Upon receipt of payment, U.S. EPA may deposit all or any portion thereof in the Kalamazoo River Special Account or the Hazardous Substance Superfund. The determination of where to deposit or how to use the funds shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement Agreement or in any other forum. Respondents may dispute U.S. EPA's determination as to recapture of funds pursuant to Section XVI (Dispute Resolution).

g. Balance of Special Account Funds. After U.S. EPA issues its written Notice of Completion of Work pursuant to this Settlement Agreement, and after U.S. EPA completes all disbursement to Respondents in accordance with this Section, if any funds remain in the Plainwell Impoundment Area Disbursement Special Account, U.S. EPA may transfer such funds to the Hazardous Substance Superfund or to the Kalamazoo River Special Account, to be retained and used to conduct or finance response actions at or in connection with the Site. Any transfer of funds to the Kalamazoo River Special Account or the Hazardous Substance Superfund shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement Agreement or in any other forum.

40. Payment of State Future Response Costs. Respondents shall pay State Future Response Costs lawfully incurred under Part 201 of NREPA as follows: except for costs incurred by the State associated with judicial enforcement of this Settlement Agreement, the State Future Response Costs during the first year after the Effective Date of this Settlement Agreement shall not exceed \$200,000 and State Future Response Costs for each subsequent year after the first anniversary date of this Settlement Agreement shall not exceed \$175,000, with the exception of enforcement costs. The State shall not be entitled to collect enforcement costs under this Paragraph if U.S. EPA is enforcing all of the terms of this Settlement Agreement. On a periodic basis, the MDEQ will send Respondents an invoice requiring payment that consists of a cost summary that sets forth with reasonable specificity, the nature of the costs incurred. Except as provided by Paragraph 42, Respondents shall make all payments within 30 calendar days of receipt of each invoice requiring payment, according to the following procedures:.

a. Payment shall be made by certified check, made payable to the "State of Michigan – Environmental Response Fund" and shall be sent by first class mail to:

MDEQ Revenue Control Unit  
Financial and Business Services Division  
P.O. Box 30657  
Lansing Michigan 48909-8157

If the payment is being submitted via courier, the payment shall be delivered to:

MDEQ Revenue Control Unit  
Financial and Business Services Division,  
Constitution Hall, 5<sup>th</sup> Floor, South Tower  
525 West Allegan Street  
Lansing, Michigan, 48933-2125

To ensure proper credit, all payments shall include the Site name Allied Paper/Portage Creek/Kalamazoo River Superfund Site and Project No.: 450316.

b. A copy of the transmittal letter and the check shall be provided simultaneously to the MDEQ Project Coordinator at the address listed in Paragraph 13; the Chief of the Compliance and Enforcement Section, RRD, at P.O. Box 30426, Lansing Michigan, 48909-7926.

c. Costs recovered pursuant to this Paragraph shall be deposited into the Environmental Response Fund in accordance with the provisions of Section 20108(3) of the NREPA.

41. In the event that the payments of State Future Response Costs are not made within 30 days of Respondents' receipt of an invoice. Respondents shall pay interest on the unpaid balance. The interest on State Future Response Costs shall accrue at the rate specified in Section 20126a(3) of Part 201 and shall begin to accrue on the date payment was due and shall continue to accrue until the Respondents make full payment of those costs, including all accrued interest, to the MDEQ. Payments of interest made under this Paragraph shall be in addition to such other

remedies or sanctions available to the MDEQ by virtue of Respondents' failure to make timely payments under this Section.

**42. Dispute Resolution for State Future Response Costs**

a. Respondents may dispute all or part of an invoice for State Future Response Costs submitted under this Settlement Agreement, only if Respondents allege that MDEQ has made an accounting error, is attempting to recover Future Response Costs in excess of the amounts specified in Paragraph 40 or if the Respondents allege that a cost was not lawfully incurred under Part 201. In any challenge to a MDEQ invoice for payment of the State's Future Response Costs, Respondents shall have the burden of establishing that the State did not lawfully incur those costs in accordance with Section 20126a(1)(a) of the NREPA. A dispute shall be considered to have arisen on the date the MDEQ receives written notification from the Respondents invoking dispute resolution. The dispute resolution process set forth in 42.b. below shall be the exclusive mechanism for resolving disputes concerning payment of State Future Response Costs. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondents shall pay the full amount of the uncontested costs to the MDEQ as specified in Paragraph 40 on or before the due date. Interest shall not accrue on any contested costs that are resolved in Respondents' favor. Payment of the unpaid contested costs, including all accrued interest, shall be made within 30 days after the dispute is resolved.

b. Respondents shall notify the MDEQ in writing within 30 calendar days of receipt of the MDEQ's invoice, unless the objection(s) has/have been resolved informally. This written notice shall include a statement of the issues in dispute, the relevant facts upon which the dispute is based, all factual data, analysis or opinion supporting Respondents' position, and all supporting documentation on which such party relies. MDEQ shall provide its Statement of Position, including supporting documentation, no later than 10 calendar days after receipt of the written notice of dispute. The time periods for exchange of written documents relating to disputes may be modified by written agreement between MDEQ and Respondents. An administrative record of any dispute under this Section shall be maintained by the MDEQ. The record shall include the Respondents' written notification of such dispute, and the MDEQ's Statement of Position. Upon review of the administrative record, the MDEQ's, Remediation and Redevelopment Division Chief, shall resolve the dispute consistent with Part 201 and the terms of this Settlement Agreement.

**43. MDNR Contribution**

a. In the interest of early action and settlement, the MDNR will contribute \$500,000 to the response actions required by this Settlement Agreement in the manner set forth in Paragraph 43.b and will undertake the post-removal site control obligations set forth in Paragraph 43.c.

b. MDNR shall disburse its \$500,000 contribution to Respondents by electronic funds transfer within thirty (30) days of receipt of U.S. EPA's written notice that all Work associated with mobilization has been completed under Paragraph 39.b.

c. Beginning three years after MDNR's receipt of the Notice of Completion of Work pursuant to Paragraph 77, MDNR agrees to perform post-removal site control as set forth in Paragraph 18. MDNR intends to satisfy its obligations under this Settlement Agreement by including in its budget request or otherwise proposing, for each fiscal period, appropriations sufficient to cover MDNR's obligations for each year, and will use all reasonable and lawful means to secure the appropriations for each year sufficient to fulfill its obligations hereunder. In the event the budget or other means of appropriations does not provide funds in sufficient amounts to discharge these obligations, MDNR shall use its best efforts to satisfy any requirements for payments from any other sources of funds legally available for this purpose. In the event Respondents incur costs or damages by performing response work at the direction of U.S. EPA to address a condition caused by MDNR's failure to perform its post-removal site control obligations, Respondents may set off those costs or damages against Respondents' obligations (if any), under either CERCLA or an agreement with MDEQ, to pay response costs incurred by MDEQ after the Effective Date in connection with long-term monitoring activities at the Site performed pursuant to its long-term monitoring program as referenced in Section 1.1.1.1 of the SOW.

## **XVI. DISPUTE RESOLUTION**

44. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

45. If Respondents object to any U.S. EPA action taken pursuant to this Settlement Agreement that does not relate to billings for Future Response Costs, they shall notify U.S. EPA in writing of their objection(s) within 10 calendar days of such action, unless the objection(s) has/have been resolved informally. If the objection relates to billings for Future Response Costs, Respondents' time for objections will be 45 calendar days. In either event, this written notice shall include a statement of the issues in dispute, the relevant facts upon which the dispute is based; all factual data, analysis or opinion supporting Respondents' position, and all supporting documentation on which such party relies. U.S. EPA shall provide its Statement of Position, including supporting documentation, no later than 10 calendar days after receipt of the written notice of dispute (or 30 days in the case of a dispute about Future Response Costs). In the event that U.S. EPA determines that these 10-day time periods for exchange of written documents will cause a delay in the work, they may be shortened upon, and in accordance with, notice by U.S. EPA. The time periods for exchange of written documents relating to disputes over billings for Future Response Costs may be extended at the sole discretion of U.S. EPA. An administrative record of any dispute under this Section shall be maintained by U.S. EPA. The record shall include the Respondents' written notification of such dispute, and U.S. EPA's Statement of Position. Upon review of the administrative record, the Director of the Superfund

Division, U.S. EPA Region 5, shall resolve the dispute consistent with the NCP and the terms of this Settlement Agreement.

46. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with U.S. EPA's decision, whichever occurs.

## **XVII. FORCE MAJEURE**

47. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondents, or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

48. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify U.S. EPA and MDEQ orally within 24 hours of when Respondents first knew that the event might cause a delay. Within 7 calendar days thereafter, Respondents shall provide to U.S. EPA in writing, with a copy to the MDEQ, an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall be grounds for U.S. EPA to deny Respondents an extension of time for performance. Respondents shall have the burden of demonstrating by a preponderance of the evidence that the event is a *force majeure*; that the delay is warranted under the circumstances; and that best efforts were exercised to avoid and mitigate the effects of the delay.

49. If U.S. EPA, after consultation with the MDEQ to the extent practical, agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by U.S. EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If U.S. EPA, after consultation with the MDEQ to the extent practical, does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, U.S. EPA will notify Respondents in writing of its decision. If U.S. EPA, after consultation with the MDEQ to the extent practical, agrees that the delay is attributable to a *force majeure* event, U.S. EPA will notify Respondents



in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

### **XVIII. STIPULATED PENALTIES**

50. Unless otherwise expressly provided for in this Settlement Agreement, Respondents shall be liable to U.S. EPA for stipulated penalties in the amounts set forth in Paragraphs 51 and 52 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVII (*Force Majeure*). "Compliance" by Respondents shall include completion of the activities under this Settlement Agreement, the Work Plan, or any other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of this Settlement Agreement within the specified time schedules established by and approved under this Settlement Agreement and the Work Plan.

#### **51. Stipulated Penalty Amounts - Work.**

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 51.b; failure to pay Future Response Costs; or for any noncompliance with any "major milestone," defined as a due date for a submission or task expressly designated as a major milestone in the Work Plan:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 750	1st through 14th day
\$ 1000	15th through 30th day
\$ 1,500	31st day and beyond

#### **b. Compliance Milestones:**

Failure to pay Future Response Costs as provided in Paragraph 36  
Failure to provide Financial Assurance as provided in Section XXIX  
Failure to provide Insurance as provided in Section XXX  
Failure to use best efforts to obtain Access as provided in Section IX  
Failure to meet any scheduled deadline in the Work Plan  
Failure to complete any planning document required by this Settlement Agreement and/or the Work Plan (*e.g.* QAPP, QMP, etc.)

52. **Stipulated Penalty Amounts - Reports.** The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports pursuant to Paragraphs 19 and 20:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 100	1st through 14th day
\$ 250	15th through 30th day
\$ 500	31st day and beyond

53. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the

correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 21st day after U.S. EPA's receipt of such submission until the date that U.S. EPA notifies Respondents of any deficiency; and 2) with respect to a decision by the Director of the Superfund Division, Region 5, under Paragraph 45 of Section XVI (Dispute Resolution), during the period, if any, beginning on the 14th day after U.S. EPA submits its written statement of position until the date that the Director of the Superfund Division issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

54. Following U.S. EPA's determination, after consultation with the MDEQ, that Respondents have failed to comply with a requirement of this Settlement Agreement, U.S. EPA may give Respondents written notification of the failure and describe the noncompliance. U.S. EPA may send Respondents a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether U.S. EPA has notified Respondents of a violation. U.S. EPA may exercise its discretion not to seek penalties.

55. All penalties accruing under this Section shall be due and payable to U.S. EPA within 30 days of Respondents' receipt from U.S. EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to U.S. EPA under this Section shall be paid by certified or cashier's check(s) made payable to "U.S. EPA Hazardous Substances Superfund," shall be mailed to U.S. Environmental Protection Agency, Program Accounting & Analysis Section, P.O. Box 371531, Pittsburgh, PA 15251-7531, and shall indicate that the payment is for stipulated penalties, and shall reference the U.S. EPA Site/Spill ID Number 059B, the U.S. EPA Docket Number, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to U.S. EPA as provided in Paragraph 36.b.

56. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.

57. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 20 days after the dispute is resolved by agreement or by receipt of U.S. EPA's decision.

58. If Respondents fail to pay stipulated penalties when due, U.S. EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 54. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of U.S. EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that U.S. EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to

Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement. Should Respondents violate this Settlement Agreement or any portion hereof, U.S. EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Settlement Agreement pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. Notwithstanding any other provision of this Section, U.S. EPA may, in its unreviewable discretion, waive in writing any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

#### **XIX. COVENANT NOT TO SUE BY U.S. EPA**

59. In consideration of the actions that will be performed and the payments that will be made by the Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, U.S. EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work, for Future Response Costs billed and paid, and for Future Response Costs billed but determined not to be payable in dispute resolution under Section XVI of this Settlement Agreement. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of all obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Paragraph 36. This covenant not to sue extends only to Respondents and does not extend to any other person.

#### **XX. COVENANT NOT TO SUE BY THE STATE**

60. In consideration of the actions that will be performed and the payments that will be made by the Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, the State covenants not to sue or to take administrative action against the Respondents pursuant to Sections 107(a) and 113 of CERCLA, 42 U.S.C. §§ 9607(a) and 9613; Section 7002 of RCRA, 42 U.S.C. § 6972; and Part 201 of NREPA, MCL 324.20101 *et seq.*, for the Work, for State Past Response Costs, and for State Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of all obligations under this Settlement Agreement, including, but not limited to, payment of State Future Response Costs pursuant to Paragraph 40. This covenant not to sue extends only to Respondents and does not extend to any other person.

#### **XXI. RESERVATIONS OF RIGHTS BY U.S. EPA**

61. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of U.S. EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Plainwell Impoundment Area or the Site. Further, nothing herein shall prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement. U.S. EPA also reserves the right to take any other legal or equitable

action as it deems appropriate and necessary, or to require the Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

62. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. U.S. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Future Response Costs;
- c. liability for Future Response Costs, other than the amounts billed and paid, or billed but determined not to be payable in dispute resolution under Section XVI of this Settlement Agreement;
- d. liability for performance of response action other than the Work;
- e. criminal liability;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

## **XXII. RESERVATIONS OF RIGHTS BY THE STATE**

63. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of the State to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Plainwell Impoundment Area or the Site. Further, nothing herein shall prevent the State from seeking legal or equitable relief to enforce the terms of this Settlement Agreement. The State also reserves the right to take any other legal or equitable action as it deems appropriate and necessary, or to require the Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable federal or state law.

64. The covenant not to sue set forth in Section XX (Covenant Not to Sue by the State) above does not pertain to any matters other than those expressly identified therein. The State reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of State Past Response Costs;
- c. liability for costs not included within the definition of State Future Response Costs;
- d. liability for performance of response action, or response activity as defined under Part 201, other than the Work;
- e. criminal liability;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; and
- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site.

### **XXIII. COVENANT NOT TO SUE BY RESPONDENTS**

65. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States or the State, or their contractors or employees, with respect to the Work, Future Response Costs billed and paid, or otherwise resolved through Dispute Resolution, under the terms of this Settlement Agreement, State Past Response Costs, State Future Response Costs, or this Settlement Agreement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any direct or indirect claim for reimbursement from the Cleanup and Redevelopment Fund pursuant to Section 20119(5) of NREPA, MCL § 324.20119(5), or any other provision of law;
- c. any claim arising out of response actions at or in connection with the Plainwell Impoundment Area or the Site, including any claim under the United States Constitution, the State of Michigan Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law;
- d. any claim against the United States pursuant to Sections 106(b)(2), 107 and 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607 and 9613, relating to the Plainwell Impoundment Area or the Site; or

e. any claim against the State pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613; Section 20126a(1)(b) or 20126a(1)(c), MCL 324.20126a(1)(b) or (c); or 20129(3) of Part 201, MCL 324.20129(3) relating to the Plainwell Impoundment Area or the Site.

These covenants not to sue shall not apply in the event the United States and/or the State brings a cause of action or issues an order pursuant to, with respect to the United States, the reservations set forth in Paragraphs 62(b) - (d), and (f) - (h), and with respect to the State, the reservations set forth in Paragraphs 63(b) - (d), and (f) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States and/or the State is seeking pursuant to the applicable reservation. These covenants not to sue shall not apply to Respondents' rights to set off under Paragraph 43(c).

66. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

#### **XXIV. OTHER CLAIMS**

67. By issuance of this Settlement Agreement, the United States, the State, and U.S. EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States, the State or U.S. EPA shall not be deemed a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

68. Except as expressly provided in Section XIX (Covenant Not to Sue by U.S. EPA) and Section XX (Covenant Not to Sue by the State), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607, and claims by the State for costs, damages and interest under Sections 107 of CERCLA, 42 U.S.C. § 9607, and Part 201 of NREPA.

69. No action or decision by U.S. EPA or the State pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h). Additionally, no action or decision by the State pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 20137(4) of Part 201, MCL 324.20137(4).

#### **XXV. CONTRIBUTION**

70. a. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C.

§§ 9613(f)(2) and 9622(h)(4), for “matters addressed” in this Settlement Agreement. The “matters addressed” in this Settlement Agreement are the Work; Future Response Costs billed and paid, or otherwise resolved through dispute resolution; State Past Response Costs; and State Future Response Costs, invoiced and paid, or otherwise resolved through dispute resolution.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which the Respondents have, as of the Effective Date, resolved their liability to the United States and to the MDEQ for the Work; Future Response Costs billed and paid or otherwise resolved through dispute resolution; State Past Response Costs; and State Future Response Costs.

c. Nothing in this Settlement Agreement precludes the United States, the State or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States or the State, pursuant to Section 113(f)(2) and (3), 42 U.S.C. §§ 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response action, and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2) and, with respect to the State, from asserting any claims under Part 201 of NREPA or other applicable state law.

## **XXVI. INDEMNIFICATION**

71. Respondents shall indemnify, save and hold harmless the United States, the State, their officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay (1) the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement; and (2) the State all costs incurred by the State, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the State based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. Neither the United States nor the State shall be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States or of the State. The Federal Tort Claims Act (28 U.S.C. §§ 2671, 2680) provides coverage for injury or loss of property, or injury or death caused by the negligent or wrongful act or omission of an employee of U.S. EPA while acting within the scope of his or her employment, under circumstances where U.S. EPA, if a private

person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.

72. The United States and the State shall, respectively, give Respondents notice of any claim for which the United States or the State plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

73. Respondents waive all claims against the United States or against the State for damages or reimbursement or for set-off of any payments made or to be made to the United States or to the State, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work at or relating to the Plainwell Impoundment Area, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States and the State with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work at or relating to the Plainwell Impoundment Area, including, but not limited to, claims on account of construction delays.

## **XXVII. MODIFICATIONS**

74. The OSC, upon agreement by MDNR and, for the first three years after issuance of Notice of Completion, after consultation with Respondents, may make modifications to the post-removal site control requirements for the Plainwell Impoundment, as specified in Section 5.6 of the Work Plan. Any modification by the OSC to the post-removal site control requirements for the Plainwell Impoundment shall be in writing or by oral direction. Any oral modification to the post-removal site control requirements will be memorialized in writing by U.S. EPA promptly, but shall have as its effective date the date of the OSC's oral direction. With regard to any other plan or schedule required by this Settlement Agreement, including but not limited to the Work Plan or any appendix thereto, the OSC, after consultation with MDEQ, may make modifications in writing or by oral direction. Any oral modification required by the OSC to any other plan or schedule will be memorialized in writing by U.S. EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any requirement of this Settlement Agreement, including post-removal site control requirements for the Plainwell Impoundment, may be modified in writing by mutual agreement of the Parties.

75. With regard to the post-removal site control requirements for the Plainwell Impoundment, if Respondents seek to modify the requirements of the Work Plan, Respondent's Project Coordinator shall submit a written request to U.S. EPA and to MDNR for approval, outlining the proposed modification and its basis. Respondents shall not proceed with the requested deviation until receiving oral or written approval from the OSC and from MDNR. If Respondents seek permission to deviate from any other requirement of the Work Plan, or any other approved plan or schedule, Respondents' Project Coordinator shall submit a written request to U.S. EPA, for approval, with a copy to the MDEQ and MDNR, outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from the OSC, after consultation with MDEQ, pursuant to Paragraph 74.



76. No informal advice, guidance, suggestion, or comment by the OSC or other U.S. EPA representatives, the State's Project Coordinators or other State representatives, regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

#### **XXVIII. NOTICE OF COMPLETION OF WORK**

77. When U.S. EPA, after consultation with the MDEQ and MDNR, and after reviewing the final report, determines that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, *e.g.*, post-removal site controls, payment of Future Response Costs and State Future Response Costs, and record retention, U.S. EPA will provide written notice to Respondents, MDEQ and MDNR. If U.S. EPA, after consultation with the State, determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the Work Plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the U.S. EPA notice. Failure by Respondents to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

#### **XXIX. FINANCIAL ASSURANCE**

78. Within 45 days of the Effective Date, Respondents shall establish and maintain financial security in the amount of \$21 million in one or more of the following forms, which must be satisfactory in form and substance to U.S. EPA. In the event Respondents establish and maintain such financial security in one of the forms identified in Subparagraphs 78(a) – 78(d) of this Paragraph, Respondents may establish and maintain such financial security jointly :

- a. a surety bond guaranteeing performance of the Work;
- b. one or more irrevocable letters of credit equaling the total estimated cost of the Work;
- c. a trust fund;
- d. a policy of insurance that (i) provides U.S. EPA with acceptable rights as a beneficiary thereof; and (ii) is issued by an insurance carrier (a) that has the authority to issue insurance policies in the applicable jurisdiction(s), and (b) whose insurance operations are regulated and examined by a state agency;
- e. a guarantee to perform the Work by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; or

f. a demonstration that one or more of the Respondents satisfy the requirements of 40 C.F.R. Part 264.143(f).

79. If Respondents seek to demonstrate the ability to complete the Work through a guarantee by a third party pursuant to Paragraph 78.e of this Section, Respondents shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f). If Respondents seek to demonstrate their ability to complete the Work by means of the financial test or the corporate guarantee pursuant to Paragraph 78.e or 78.f of this Section, they shall resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date. In the event that U.S. EPA determines at any time that the financial assurances provided pursuant to this Section are inadequate, Respondents shall, within 45 days of receipt of notice of U.S. EPA's determination, obtain and present to U.S. EPA for approval one of the other forms of financial assurance listed in Paragraph 78 of this Section. Respondents' inability to demonstrate financial ability to complete the Work shall not excuse performance of any activities required under this Settlement Agreement.

80. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 78 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to U.S. EPA, in accordance with the requirements of this Section, and may reduce the amount of the security upon approval by U.S. EPA. In the event of a dispute, Respondents may reduce the amount of the security in accordance with the written decision resolving the dispute.

81. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and approval by U.S. EPA, provided that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

### **XXX. INSURANCE**

82. At least 7 days prior to commencing any on-Site work under this Settlement Agreement, Respondents or its contractors shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of \$2 million dollars, combined single limit. Within the same time period, Respondents shall provide U.S. EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to U.S. EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide

only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

### **XXXI. SEVERABILITY/INTEGRATION/APPENDICES**

83. If a court issues an order that invalidates any provision of this Settlement Agreement or finds that Respondents have sufficient cause not to comply with one or more provisions of this Settlement Agreement, Respondents shall remain bound to comply with all provisions of this Settlement Agreement not invalidated or determined to be subject to a sufficient cause defense by the court's order.

84. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are incorporated into this Settlement Agreement:

Appendix 1: Action Memorandum issued by U.S. EPA on February 14, 2007

Appendix 2: Map generally depicting the Allied Paper/Portage Creek/Kalamazoo River Superfund Site

Appendix 3: State Response Costs

Appendix 4: Work Plan approved by U.S. EPA on February 14, 2007 and the MDEQ and MDNR on February 13, 2007

### **XXXII. EFFECTIVE DATE**

85. This Settlement Agreement shall be effective upon signature by the Director, Superfund Division, U.S. EPA Region 5.

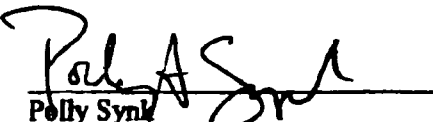
THE UNDERSIGNED PARTY enters into this Agreement with regard to the Plainwell  
Impoundment Area of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in  
Kalamazoo and Allegan Counties, Michigan:

FOR THE STATE OF MICHIGAN:

Michael A. Cox  
Attorney General

Date: 2-15-07

By:

  
Polly Synek  
Assistant Attorney General  
Environment, Natural Resources, and  
Agriculture Division

FOR THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY:

Date: 2/15/07

By:

  
Jim Sygo, Deputy Director  
MDEQ

FOR THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES:

Date: 2/15/07

By:

  
Arminda S. Koch, Deputy Director  
MDNR

THE UNDERSIGNED PARTY enters into this Agreement with regard to the Plainwell Impoundment Area of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan:

FOR MILLENNIUM HOLDINGS, LLC

Date: February 15, 2007

By: Deborah W. Kryak  
Deborah W. Kryak  
Director, Retained Liabilities and  
Remediation

THE UNDERSIGNED PARTY enters into this Agreement with regard to the Plainwell Impoundment Area of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan:

FOR GEORGIA-PACIFIC CORPORATION <sup>LLC</sup> <sub>JMD</sub>

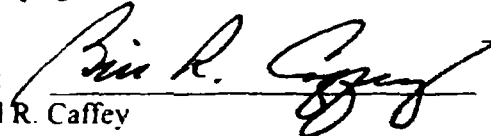
Date: FEBRUARY 15, 2007

JMD

By:

Bill R. Caffey

EVP Operations & Compliance



THE UNDERSIGNED PARTY enters into this Agreement with regard to the Plainwell Impoundment Area of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan:

It is so ORDERED and Agreed this 21 day of February, 2007.

BY: Richard C. Karl  
Richard C. Karl, Director  
Superfund Division  
United States Environmental Protection Agency  
Region 5

## APPENDIX 1





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SE-5J

FEB 14 2007

MEMORANDUM

DATE: FEB 14 2007

SUBJECT: ENFORCEMENT ACTION MEMORANDUM: Determination of an Imminent and Substantial Threat to Public Health and the Environment at the Plainwell Impoundment Area of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site, Allegan County, Michigan (Site ID# 059B)

FROM: Samuel Borries, On-Scene Coordinator  
Emergency Response Branch 2 - Section 2

THRU: Linda M. Nachowicz, Chief *Linda Nachowicz* FJR L.N.  
Emergency Response Branch 2

TO: Richard C. Karl, Director  
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to document the determination of an imminent and substantial threat to public health and the environment at the "Plainwell Impoundment," an area of contamination within the Kalamazoo River Operable Unit of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site (sometimes referred to as the "Site" or the "Kalamazoo River Site"). The Site, which is located in Allegan and Kalamazoo Counties, Michigan, is pervasively contaminated with polychlorinated biphenyl (PCB), primarily as the result of waste practices associated with the de-inking of carbonless copy paper. The Site was listed on the NPL on August 30, 1990.

The Plainwell Impoundment is located in Gun Plain and Otsego Townships, downstream of Plainwell, Michigan, at latitude -85.66835 and longitude 42.45543. As described at greater length below, the Plainwell Impoundment extends 8000 feet upstream from the Plainwell Dam,

and includes 1.5 miles of Kalamazoo River **channel**, adjacent banks, and 79 acres of floodplains.\* The Plainwell Dam impounds 77,000 cubic yards of submerged sediment.

The response actions proposed in this Action Memorandum will mitigate threats to public health, welfare, and the environment presented by the presence of an uncontrolled release of PCB, a hazardous substance, into the food chain of the Kalamazoo River from in-stream sediments, riverbank soils, and floodplain soils located within the Plainwell Impoundment. Due to the contaminated nature of the sediment, the continuing release of contamination into the food chain, and potential exposure to the public, this removal action will be classified as time-critical. The proposed response actions include dredging and/or excavation of sediment, riverbank soils and floodplain soil, containment, monitoring, water treatment, stabilization and on-Site disposal. The response activities will require approximately 400 on-Site working days to complete, and will result in the removal of 132,000 cubic yards of waste material, containing 4,400 pounds (88%) of PCB, from the Plainwell Impoundment.

Subsequent to completion of the removal action, Region 5 will complete its evaluation, through the Superfund remedial process, of the risks to human health and the environment presented by the presence of PCB within the first reach of the Kalamazoo River Operable Unit of the Site (which includes the Plainwell Impoundment). This evaluation will consider data collected and analyses performed as part of the removal action described in this Action Memorandum. U.S. EPA will then issue a Record of Decision (ROD) for the entire first reach of the Kalamazoo River Operable Unit (*i.e.* Morrow Dam to the Plainwell Dam) and, as part of that ROD, will determine whether additional response actions are necessary within the Plainwell Impoundment to address risks to human health and the environment not addressed through the time-critical removal process.

Two of the potentially responsible parties (PRPs) for the Site, Millennium Holdings, LLC (MHLLC) and Georgia-Pacific Corporation (GP), are prepared to conduct the time-critical removal action described in this Action Memorandum. Both of these companies are owners of now-inoperable papermaking facilities at the Site. The companies (or their predecessors-in-interest) engaged in the de-inking of carbonless copy paper, and discharged wastes containing high concentrations of PCB into the Kalamazoo River upstream of the Plainwell Impoundment.

The decision by MHLLC and GP to conduct this response action is the result of more than two years of formal mediation among the two companies, U.S. EPA, the Michigan Department of Environmental Quality (MDEQ), the Michigan Department of Natural Resources (MDNR), the Michigan Department of Attorney General, the U.S. Department of Interior and the National Oceanic and Atmospheric Administration. The United States Department of Justice participated in many of the mediation sessions. On August 28, 2006, MHLLC, GP, U.S. EPA, MDNR, MDEQ, and the Michigan Department of Attorney General entered into an Agreement in

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\* As a general matter, volume, area and distance quantities used in this Action Memorandum are approximations, and represent U.S. EPA's best estimates as of the date of this Action Memorandum.

Principle, pursuant to which MHLLC and GP agreed to conduct a time-critical removal action to excavate and/or dredge PCB from the Plainwell Impoundment. MHLLC and GP also agreed to conduct a Supplemental Remedial Investigation and Feasibility Study (SRI/FS) for the Site. Negotiations for both administrative settlements are almost complete.

The State of Michigan will be a signatory to the Administrative Settlement and Consent Agreement for the proposed time-critical removal action (AOC), which will include, as an enforceable exhibit, an engineering design (Design). MHLLC and GP submitted a draft Design on November 13, 2006. All mediation parties consulted on the draft Design, which was approved by the State of Michigan on February 13, 2007. U.S. EPA expects to approve the Design on February 14, 2007.

## II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # MID006007306

### A. Physical Location and Description

The Kalamazoo River Site includes approximately 80 miles of the Kalamazoo River between Morrow Dam and Lake Michigan, adjacent floodplains and wetlands, and (to the extent they contribute PCB to the Kalamazoo River system) four paper waste disposal areas and several former paper mill properties. The Site lies within the Great Lakes Basin in the Kalamazoo River watershed of Michigan's Lower Peninsula. The watershed drains 2,020 square miles of southwest Michigan. It reaches 162 miles into south-central Michigan, and ranges in width from 11 to 29 miles.

The main channel of the Kalamazoo River flows northwest for 123 miles before ultimately emptying into Lake Michigan near Saugatuk, Michigan (KRW PAC 1998; BBL 2000b). The river contributes 42 pounds of PCB annually to Lake Michigan.

Site topography is influenced largely by past glacial activity. The area is relatively flat with gentle rolling plains. In general, the land surface slopes gently westward toward Lake Michigan. Ground and terminal moraines, eskers, and drumlins provide the only significant relief over the region. Low elevation areas are typically wetlands or bodies of open water, such as kettle lakes. Drainage patterns center around the former meltwater drainageway, which is now, at its lowest points, occupied by the Kalamazoo River. The river itself drops 540 feet in elevation from its headwaters to its mouth, producing a slow to moderate stream gradient (KRW PAC 1998).

The Plainwell Dam was built in 1902 as a hydroelectric facility. In 1966, Consumers Power decommissioned the Plainwell Dam as a power generator, and donated it (along with the Otsego and Trowbridge dams) to the Lands Division of MDNR. During the 1970s and 1980s, MDNR dismantled the powerhouse structure and some of the spillway about the fixed crest. As a result, the water level at the Plainwell Impoundment dropped, and formerly-submerged sediments became exposed and ultimately vegetated. These formerly-submerged sediments are now generally referred to as "floodplain soils."

The term "Plainwell Impoundment" or "Plainwell Impoundment area" generally refers to that portion of the Kalamazoo River system that was underwater when the Plainwell Dam was intact and fully operational. At that time, the dam had a head of 13 feet and impounded water to an elevation of 712 feet National Geodetic Vertical Datum (NGVD) (Evans, 1966). The impounded water covered an area of 123 acres (Miller 1966). The sill of the dam now has a head of only 5 feet (Johnson et al. 1989), and an impounded surface area of 44 acres. Within the Plainwell Impoundment, the Kalamazoo River currently averages 197 feet in width and 3.7 feet in depth (BBL 1994c). The drainage area around the impoundment covers 1,299 square miles (Hayes 1996b).

According to MDNR, impoundment stages higher than an elevation of 707.0 feet above mean sea level will result in water flowing over parts of the embankment adjacent to the spillway of the former powerhouse. Spillway capacity at an elevation of 707 feet is about 5,700 cubic feet per second (cfs), which approximates the 10-year flood stage (Hayes 1996b).

The topography of the Plainwell Impoundment area is very much a reflection of the bathymetry of the river before removal of the dam's superstructures. The river has two large meander bends that run about a mile upstream of the reduced dam. The insides of the meander bends are wide and flat, with only 1 to 3 feet of relief. These areas mark the primary location of sediment deposition when the river was fully impounded. The outer banks of the meander bends are steep, with 10 to 25 feet of relief. In some areas of the outer banks, there are small, flat areas 10 to 50 feet wide. These areas, too, are depositional relics of the former impoundment water levels, and have the greatest potential for erosion since they border the eroding bank of the river channel. Upstream of the meander bends, the river straightens its channel somewhat and has wide, impoundment-deposited flats on each side of the river. In areas where the depositional flats are not present, the banks are steep, with 10 to 15 feet of relief.

#### B. Environmental Justice Analysis

To meet Region 5's Environmental Justice (EJ) concern criteria, the area within 1 mile of a site must have a population that is at least twice the state's average low-income percentage and/or twice the state minority percentage. Among all Michigan residents, the low-income percentage is 29% and the minority percentage is 21%. U.S. EPA's EJ analysis of the population within one mile of the Plainwell Impoundment area determined that the low-income percentage is 30% and the minority percentage is 4%. Therefore, the Plainwell Impoundment area does not meet the Region's EJ criteria based on demographics, as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998."

#### C. Site Assessments

The Administrative Record for the Kalamazoo River Site contains numerous reports which summarize the investigations conducted to date. Attachment 3 to this Action Memorandum

contains short descriptions of many of the major reports for the Site. Detailed information from the reports most relevant to this time-critical removal action is set forth here:

#### 1. RI/FS Data.

Between 1990 and 2000, several PRPs for the Site (including MHLLC and GP) conducted a Site-wide RI/FS pursuant to an administrative agreement with the State of Michigan. During the 1993 and 1994 RI field work, approximately 125 submerged sediment samples were collected from within the channel of the former Plainwell Impoundment. Total PCB concentrations ranged from non-detect to 139 milligrams per kilogram (mg/kg).

The RI field work also included an assessment of the physical characteristics of the riverbanks within the three former impoundments. The PRPs concluded, primarily through visual observation, that the riverbanks were a source of ongoing loading of exposed sediments (and therefore PCB) to the river. The PRPs also identified, again primarily through visual observation, some of the mechanisms involved in such loading. The cohesive nature of the exposed sediments allows significant portions of the impoundments' riverbanks to remain in vertical-to-near-vertical repose. The fine-grained exposed sediments, however, generally overlie non-cohesive sandy sediments or soils. As a result, the faces of the banks are susceptible to erosion through direct contact with the river at higher river stages, and to undercutting by erosion of the underlying non-cohesive sediments or soils. Undercutting progresses until the overlying sediments fail by slumping or calving as blocks that fall into the river. The remnants of such blocks can be observed along the toe of the banks in certain areas. (BBL 2000).

The PRPs also conducted visual observations of the floodplain soils in the impoundment areas. The floodplain soils were often covered by a few inches of brown, silty-to-sandy soil, often mixed with organic material. The thickness of the floodplain soils at the Plainwell Impoundment ranged from several inches in the areas at the upstream end to several feet in areas near the dam sill, with an average thickness of 3.8 feet. Areas of gray clay deposition were observed in locations where the former impoundment water was relatively shallow or where backwater conditions existed.

The PRPs estimated the volume of the floodplain soils within the Plainwell Impoundment to be approximately 360,000 cy (BBL 2000). The PRPs collected 135 floodplain soil samples that had total PCB concentrations ranging from not-detected to 85 mg/kg, with an overall average concentration of 8.9 mg/kg (BBL, 1994a; BBL, 2000a). PCB concentrations were generally found to decrease with depth, and concentrations in subsurface soils tended to decrease with distance from the river.

#### 2. USGS Study.

In 2002, the United States Geological Survey (USGS) and MDEQ prepared a study to define the Kalamazoo River's fluvial sedimentology within the Plainwell, Otsego, and Trowbridge impoundments. The objective of the study was to provide a better estimate of the volume, configuration, character, and distribution of in-stream sediments at the impoundments. The project included creating sediment-depth profiles and performing particle-size analyses from

sediment cores. The sediment cores provided information on both pre- and post-impoundment erosion and deposition. USGS concluded that lacustrine deposits accumulated when the dams were in place. The fine-grained deposits ranged in thickness from zero to 12 feet. Once the dam superstructures were removed, alluvial deposits accumulated on the erosional cut into the lacustrine deposits. These coarser deposits ranged in thickness from zero to 5.5 feet.

USGS used the data it collected to prepare a series of detailed isopach maps for each impoundment area. The maps depict not only sediment thicknesses as they currently exist, but also sediment thicknesses that would result from any dismantling of the dams. USGS estimated that complete removal of the three dams would increase the slope of the Kalamazoo River to more than 2 percent, making the river a moderate-gradient system (USGS 2002).

In 2005, USGS, in cooperation with U.S. EPA and MDEQ, conducted an additional study of the channel characteristics of the Kalamazoo River. This study concluded that the erosion of the “toe” of the bank widens the River’s stream, and results in steeper bank angles. Once the bank undercut exceeds its critical bank angle, the inability of the sediments to support themselves results in bank failure.

### 3. U.S. EPA Supplemental Response Activities.

In order to better determine the areal extent and volume of PCB-contaminated soils and sediments in the Plainwell and Otsego City impoundments, in 2001 U.S. EPA conducted a two-phase sampling program. During Phase I, U.S. EPA obtained in-stream sediment and floodplain soil samples from areas of the river system between Plainwell and Otsego. Phase II involved collecting samples in a radial grid pattern around specific samples collected during Phase I. (The purpose of such radial sampling is to provide U.S. EPA with greater resolution in determining the areal extent of contamination.)

During Phase I sampling of submerged sediments, U.S. EPA collected 53 samples whose total PCB concentrations ranged from not-detected to 33 mg/kg (Weston, 2002). During Phase II sampling, U.S. EPA collected an additional 160 sediment samples from around sample location SD004, which is approximately 1,500 feet upstream of the Plainwell Dam. The results of this effort showed total PCB concentrations ranging from not-detected to 4.2 mg/kg (Weston, 2002).

U.S. EPA collected 147 floodplain soil samples (Phase I), which ranged in total PCB concentration from not-detected to 84 mg/kg (Weston, 2002). The Agency followed up with Phase II radial sampling in three locations, referred to as Grid 1 (218 samples around Sampling Location [SL] 015), Grid 2 (235 samples around SL029), and Grid 6 (159 samples around SL012). Total PCB concentrations in the Phase II samples ranged from not-detected to 158 mg/kg in Grid 1; from not-detected to 45.3 mg/kg in Grid 2; and from not-detected to 65.6 mg/kg in Grid 6 (Weston, 2002).

U.S. EPA’s 2001 study confirmed: (1) that the gray clay material in the Plainwell Impoundment is indicative of waste paper residuals; (2) that most of the PCB contamination at these impoundments occurs within the uppermost two feet of sediment or soil; and (3) that “hot spots” of higher PCB concentration are located in the floodplain soils (Weston 2002).

4. PRP-conducted Supplemental Response Work.

a. Bank erosion studies

Since submitting the draft RI/FS Report in 2002, MHLLC and GP have conducted several supplemental studies regarding the nature and extent of PCB loading from the Plainwell Impoundment into the Kalamazoo River. Between 2000 and 2003, MHLLC and GP performed an analysis of the extent and rate of bank erosion by placing erosion pins in the riverbanks. Cross-sectional data from this work was documented in three erosion pin monitoring reports (BBL, June 2001; BBL, March 2002; BBL, January 2003). The PRPs generated evidence of erosion by comparing 1993 transects and a 2003 survey of 74 bank profiles (placed at 100-foot intervals), each of which was used to demarcate bank slope, top of bank, toe of bank, and bank cross-sections (BBL, 2003).

b. Bank characterization study

In 2003 the PRPs performed a bank characterization study which included 87 top-of-bank soil samples (BBL, 2003). Sample results indicated total PCB concentrations in these soils ranging from 0.20 mg/kg to 120 mg/kg. The calculated arithmetic average for PCBs in bank soils, derived from the combined 1993/94 RI field work and 2003 sampling, was 23 mg/kg. These combined data also indicated that PCB concentrations were greater in soils near the river channel, and concentrations decreased with distance from the river (BBL, 2000a; BBL, 2003).

c. In-stream sediment sampling

At the request of U.S. EPA, in 2006 the PRPs collected 222 in-stream sediment samples. Total PCB concentration in these samples ranged from not-detected to 220 mg/kg.

D. Risk Assessments

1. Human Health Risk Assessments.

The Michigan Department of Natural Resources first issued a public health advisory regarding PCB contamination in the Kalamazoo River in 1977. This advisory remains in place today, and warns against eating a variety of fish species from the river.

In December 1991, working under a cooperative agreement with the federal Agency for Toxic Substances and Disease Registry (ATSDR), the Michigan Department of Public Health (MDPH) prepared a Public Health Assessment (PHA) for the Kalamazoo River Site. The PHA indicated that the Site was a public health hazard because of the probable exposure to hazardous substances at concentrations that might result in adverse health effects. Potential human exposure pathways of concern included incidental ingestion and inhalation of contaminated soils and ingestion of contaminated biota.

In April 2003, MDNR completed work on the human health risk assessment for the Site. Although the human health risk assessment's data and analysis pertain to the entire Kalamazoo River Operable Unit and not solely to the Plainwell Impoundment, the risk analysis is relevant to

Region 5's determination of imminent and substantial endangerment in this Action Memorandum. The primary human health risks identified in the assessment are summarized here:

- Cancer risks and noncarcinogenic Hazard Quotients (HQ) exceed U.S. EPA and/or MDEQ acceptable risk limits for both sport and subsistence fishermen. Carcinogenic risk from the consumption of fish ranges from  $9.0 \times 10^{-5}$  to  $1.7 \times 10^{-3}$  depending on the river segment being evaluated. Noncarcinogenic HQs for the consumption of fish range from 1.7 to 80 for reproductive effects and 5.3 to 280 for immunological effects.
- Cancer risks from dermal contact exceed MDEQ's thresholds for residents living near the floodplain soil behind the Plainwell Impoundment based on both average and maximum PCB exposure concentrations.
- Cancer risks from dermal contact exceed U.S. EPA's acceptable cancer risk range for residents living near the floodplain soils behind the Plainwell Impoundment based on maximum PCB exposure concentrations.
- HQs exceed the MDEQ and U.S. EPA threshold of 1.0 for immunological effects for residents living near the floodplain soils behind the Plainwell Impoundment based on average and maximum PCB exposure concentrations. The HQ for reproductive effects exceeds the MDEQ and USEPA threshold of 1.0 based on maximum PCB exposure concentrations .
- Cancer risks for recreational users on the floodplain soil behind the Plainwell Impoundment exceed MDEQ's threshold based on maximum PCB exposure concentrations.
- HQs for recreational users on the floodplain soil behind the Plainwell Impoundment exceed the U.S. EPA and MDEQ threshold of 1 for reproductive effects based on maximum PCB exposure concentrations.

## 2. Ecological Risk Assessment

MDEQ finalized the Ecological Risk Assessment (ERA) for the Kalamazoo River in April 2003. Like the Human Health Risk Assessment, the ERA's data and analysis pertain to the entire Kalamazoo River Operable Unit. Nevertheless, the ERA's findings are also relevant to Region 5's determination of imminent and substantial endangerment at the Plainwell Impoundment. Accordingly, the primary findings from the ERA are explained here.

The ERA focused primarily on assessing population-level risks associated with PCB contamination in abiotic media and biota. Because of the potential for PCBs to accumulate in biological tissues and exert adverse effects in upper trophic level biota, the ERA specifically considered bioaccumulation, food chain effects, and adverse effects in upper trophic level organisms.



The ERA focused on assessing the risks from PCB exposures via direct contact with contaminated surface water, streambed sediment, floodplain (exposed) sediment, and surface soil, as well as ingestion of PCB-contaminated food items.

The ERA concluded that PCB contamination at the Site presents a high to moderate ecological risk for eight animal species. Table 5.3 of the study identifies the estimated risks for all representative species of concern, based on estimated PCB dose (birds and mammals) or on the Site-wide average PCB concentration (aquatic receptors).

More particularly, the ERA found that PCB contamination of surface water and streambed sediment (and floodplain soils that are frequently inundated or have the potential to erode into the river) is likely to adversely affect sensitive piscivorous predators such as mink through consumption of PCB-contaminated prey, especially fish. Other piscivorous predators, such as bald eagles, also appear to be at high risk based on the exposure assumptions presented in the ERA. Terrestrial and semi-aquatic biota may also be at risk from PCB-contaminated floodplain sediment and surface soil, depending on life history (e.g. foraging behavior, diet, mobility) and sensitivity to PCBs. Omnivorous birds (represented by the robin) that consume substantial numbers of soil invertebrates, such as earthworms, appear to be at moderate but still significant risk.

Finally, the United States Fish and Wildlife Service has identified two federally endangered species, two federally threatened species, and one federal candidate species that can be present in Allegan County. The Karner blue butterfly and the Indiana bat both are endangered. The bald eagle and Pitcher's thistle (a plant) are both threatened in this region. The eastern massasauga rattlesnake is the lone candidate species (BBL 2000b).

The MDNR lists seven species as endangered or threatened (not including the federally-listed species) in or near the Site. Endangered species in this area include the zigzag bladderwort, wild American ginseng, and the log fern (plants), the creek chubsucker (fish), prairie warbler (bird), ottoe skipper (insect), and the spotted turtle (reptile) (BBL 2000b).

### III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions present at the Plainwell Impoundment of the Kalamazoo River Site constitute a threat to public health, welfare or the environment based upon the factors set forth in 40 C.F.R. § 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). These include, but may not be limited to, the following:

- Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

PCB is a hazardous substance, as that term is defined by Section 101(14) of CERCLA. PCBs are also listed as a hazardous substance under Section 311(b)(2) of the Clean Water Act, as set forth in 40 C.F.R. § 116.4 Table A. The Toxic Substances Control Act (TSCA) states that "exposure of human beings or the environment to PCBs... may be significant, depending upon the quantity of PCBs,...the likelihood of exposure to humans and the environment...." U.S. EPA has determined that PCBs are a probable human carcinogen. These chemicals have the potential to biomagnify, which means that they have the potential to increase in concentration as they are transferred from one link in the food chain to another.

The Plainwell Impoundment has PCB levels up to 220 mg/kg for in-stream sediments, 120 mg/kg in top-of-bank soils and 158 mg/kg in floodplain soils. The ongoing, uncontrolled erosion of soils from the riverbanks is a significant source of PCB loading to the Kalamazoo River. PCB-containing waste paper residuals and soils slough off the banks, to be deposited in the river or transported downstream (BBL, 2000a). In-stream sediments and bank soils are primary sources of an ongoing release of PCB into the waters of the Kalamazoo River.

Although the 1977 MDPH advisory is still in effect, the fish consumption advisory is simply that – advisory. MDPH personnel have observed that the Kalamazoo River between Kalamazoo and Plainwell is becoming a popular fishery. It has been reported that anglers have been taking home fish in amounts that may be inconsistent with the consumption advisories issued by the MDPH. It was also reported that turtles have also been taken from the river for human consumption, which would provide for another potential human exposure pathway.

The most significant outcome of the ecological and human health risk assessments is the conclusion that fish consumption is the primary exposure pathway for receptors that may be at risk from PCB within media of the Kalamazoo River. Therefore, the key to reducing exposure and potential risks to important receptors (e.g. fish-eating birds, fish-eating wildlife, and humans) is to reduce PCB concentrations in the fish tissue consumed by these receptors. The greatest factor controlling PCB levels in fish is the bioavailability of PCB in surface sediments and the water column where fish and their prey come in contact with or ingest PCB (BBL 2000).

Finally, MDEQ has identified an area of the Plainwell Impoundment where residential properties are located immediately adjacent to riverbank contamination in excess of 50 mg/kg PCB. Due to the direct contact risk, the proposed removal action will include excavation of these areas to the Michigan residential standard for PCB.

- High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

On an annual basis, the Plainwell Impoundment contributes approximately 28 kg of PCB to the Kalamazoo River (BBL 2000). An estimated 2,317 kg (5,097 lbs) of PCB have come to be located within the sediments and soils of the Plainwell Impoundment. As explained above, the sediments and floodplain soils that are located in-stream or near the river's edge are susceptible to erosion and scouring. During high water events, inundation of the floodplain soils and

increases in river velocity create conditions that are likely to cause additional releases of PCB to the Kalamazoo River and, ultimately, Lake Michigan.

- Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The Kalamazoo River is often subjected to extreme weather conditions in the winter and spring, which enhance the threat of a release of PCB. The breakup of ice in the late winter, and the movement of ice floes downstream, cause scouring of the banks and river bottom. Likewise, heavy spring rains and/or summer storms increase stream volume and current velocity, which lead to increased scouring of the river bottom and banks. All of these forces cause an increase in the volume and extent of PCB contamination in the Kalamazoo River and Lake Michigan.

- The availability of other appropriate federal or state response mechanisms to respond to the release;

State and local response mechanisms are not available to respond to this release. Therefore, the Region 5 removal program will implement response actions to address an estimated 132,000 cubic yards of PCB-contaminated material containing approximately 2,000 kg (4,400 lbs) of PCB within the Plainwell Impoundment. Responding to this material prior to future high flow periods will provide added protection to the Kalamazoo River and downstream ecosystems.

#### IV. ENDANGERMENT DETERMINATION

Given the conditions at the Plainwell Impoundment, the nature of the hazardous substance there, and the potential exposure pathways described above, the actual or threatened release of PCB from the Plainwell Impoundment, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

#### V. PROPOSED ACTIONS

##### A. Description of the Proposed Action

The preferred response action to mitigate threats associated with PCB-contaminated sediments in the Plainwell Impoundment consists of removing contaminated submerged sediments and floodplain soils. The AOC will specify all required response actions, which will include, but may not be limited to, the following tasks:

- 1) dredging and/or excavation of PCB contaminated sediments behind the Plainwell Dam; in the 3 discrete sediment areas identified mid-channel; and within 40 feet from the existing bank;

- 2) cut-back and stabilization of riverbanks to mitigate exposures to PCB-contaminated banks and future erosion;
- 3) removal of PCB-contaminated floodplain soils in excess of 50 mg/kg PCB;
- 4) removal of the floodplain areas where residential exposure to PCB-contaminated floodplain soils is in excess of 4 mg/kg PCB, the Michigan residential standard for PCB in soil;
- 5) dewatering, as necessary, and disposal of all PCB-contaminated sediment and bank and floodplain soils removed pursuant to ¶¶ 1-4 above into existing landfills located at the Allied Paper Operable Unit of the Site;
- 6) the use of clean soils excavated as part of the bank cutback work to cover floodplain soils contaminated above human health or ecological risk levels;
- 7) an evaluation of the impact of removing PCB-contaminated sediments abutting the Plainwell Dam on the dam's structural integrity;
- 8) an evaluation of whether a temporary or permanent lowering of the water level within the river may minimize movement of PCB-contaminated sediments during construction and/or the erosion of banks and floodplains covered with clean soils; and
- 9) if appropriate in light of the evaluations in 7) and 8), removal of one or more portions of the Plainwell Dam structure as needed to reduce the risk of sudden failure of the Plainwell Dam and/or minimize short- and long-term PCB mobilization from banks and floodplains.
- 10) Finally, the response action shall ensure that a stable river channel exists post-removal, re-vegetation with native plant species occurs, and that appropriate monitoring is performed both during and after the response action.

The response action will be conducted in a manner not inconsistent with the NCP. The OSC has initiated planning for provision of post-removal site control consistent with the provisions of Section 300.415(l) of the NCP.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the Plainwell Impoundment which may pose an imminent and substantial endangerment to public health, welfare and the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

These activities will require an estimated 400 on-site working days to complete.

## B. Cleanup Standards

As noted above, subsequent to the completion of the proposed time-critical removal action, Region 5 will evaluate any residual risk to human health and the environment in an RI/FS for the first reach of the Kalamazoo River, which includes the Plainwell Impoundment. Remedial cleanup standards will be established in the FS and in the ROD for the entire first reach. For purposes of the proposed time-critical removal action, Region 5 has established the following cleanup standards:

- **Mid-channel in-stream sediments:** U.S. EPA has identified three mid-channel areas where PCB has been detected at concentrations in excess of 50 mg/kg. These sediments will be removed to either a  $\leq 1$  mg/kg PCB standard, or to a “neat line” representing an elevation of 6 inches above pre-impoundment channel bottom.
- **In-stream sediments located within 40 feet of the riverbanks:** These sediments will be removed to either a  $\leq 1$  mg/kg PCB standard, or to a “neat line” representing an elevation of 6 inches above pre-impoundment channel bottom.
- **PCB-contaminated soil in excess of 4 mg/kg on the river’s north floodplain on or near residential properties upstream of U.S. 131:** These soils will be removed to the extent the floodplain can be reasonably accessed.
- **PCB-contaminated soils elsewhere within the Plainwell Impoundment:** Floodplain soils with PCB concentrations in excess of 50 mg/kg at any depth, based on current data, will be removed. The cleanup goal for these soils is 5 mg/kg.

The Design will specify other project requirements to be completed as part of this removal action.

## C. Orderly Transition to Remedial Response

The NCP requires that, if U.S. EPA determines that a removal action will not fully address a release, and that subsequent remedial action may be necessary, then the Agency must ensure an orderly transition from removal to remedial response activities. 40 C.F.R. § 300.415(g). As noted above, subsequent to the removal action selected in this Action Memorandum, Region 5 will complete its evaluation, through the Superfund remedial process, of the risks to human health and the environment within the entire first reach of the Kalamazoo River (which includes the Plainwell Impoundment). Residual risks to human health and the environment remaining within the impoundment after completion of the removal action will be evaluated as part of that

process. If U.S. EPA determines that additional response work is necessary in the Plainwell Impoundment, such work will be required by the ROD.

D. Applicable or Relevant And Appropriate Requirements

All applicable or relevant and appropriate requirements (ARARs) of federal and state law will be complied with to the extent practicable. By letter dated October 23, 2006, Region 5 requested that MDEQ identify potential state ARARs for this response action. Any state ARARs identified in a timely manner for this removal action will be complied with to the extent practicable.

E. Compliance with the PCB Remediation Waste Rule

Most, if not all, of the wastes to be excavated and/or dredged from the Plainwell Impoundment will be at least temporarily disposed in the landfills located at the Allied Paper Operable Unit (OU #1) of the Site. MDEQ is currently in the process of completing the RI for OU #1. The RI Report will identify all potential federal and state ARARs for the OU #1 remedial action.

Region 5 has determined that, with regard to the disposal of wastes from the Plainwell Impoundment with PCB concentrations exceeding 50 mg/kg, the relevant portions of the PCB Remediation Waste Rule, 40 C.F.R. § 761.61 *et seq.*, collectively comprise an ARAR for the proposed removal action. Region 5 also anticipates that the PCB Remediation Waste Rule will be an ARAR for the OU#1 remedy. In the course of determining the remedy for OU #1, the Region 5 TSCA and Superfund programs will evaluate the appropriateness of permanent consolidation and disposal of the sediments and soils from the Plainwell Impoundment in the Allied Paper OU landfills. Accordingly, for purposes of this removal action, compliance with the TSCA ARAR will occur as part of Region 5's selection of the remedy for OU #1.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Continued risk to public health and the environment will result if response action is delayed or not taken. Delayed action increases the likelihood that human and/or wildlife populations with access to the area will come into direct contact with PCB-contaminated sediments and floodplain soils.

VII. OUTSTANDING POLICY ISSUES

No outstanding policy issues have been identified in relation to the Plainwell Impoundment.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy associated with this removal action is contained in a confidential Enforcement Addendum.

## IX. RECOMMENDATION

This decision document represents the selected response action for the Plainwell Impoundment area of the Kalamazoo River Site. It was developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record (Attachment 2) for the removal action, an index of which is attached to this Action Memorandum.

Conditions at the Plainwell Impoundment meet the criteria of Section 300.415(b)(2) of the NCP for a removal action, and I recommend your approval of the proposed removal action. Region 5 expects that two potentially responsible parties will perform all removal actions under the oversight of the OSC. You may indicate your decision by signing below.

APPROVE: Richard C. Karl DATE: 2-14-07  
Richard C. Karl,  
Director, Superfund Division

DISAPPROVE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Richard C. Karl,  
Director, Superfund Division

### Attachments:

Enforcement Addendum  
Environmental Justice Analysis  
Attachment 1: Agreement in Principle  
Attachment 2: Administrative Record Index .  
Attachment 3: Description of Previous Site Assessments

cc: D. Chung, U.S. EPA, 5203-G  
M. Chezick, U.S. DOI, w/o Enf. Addendum  
Steven E. Chester, Director, Michigan DEQ, w/o Enf. Addendum  
Michael Cox, Michigan Attorney General, w/o Enf. Addendum

**ENFORCEMENT ADDENDUM**

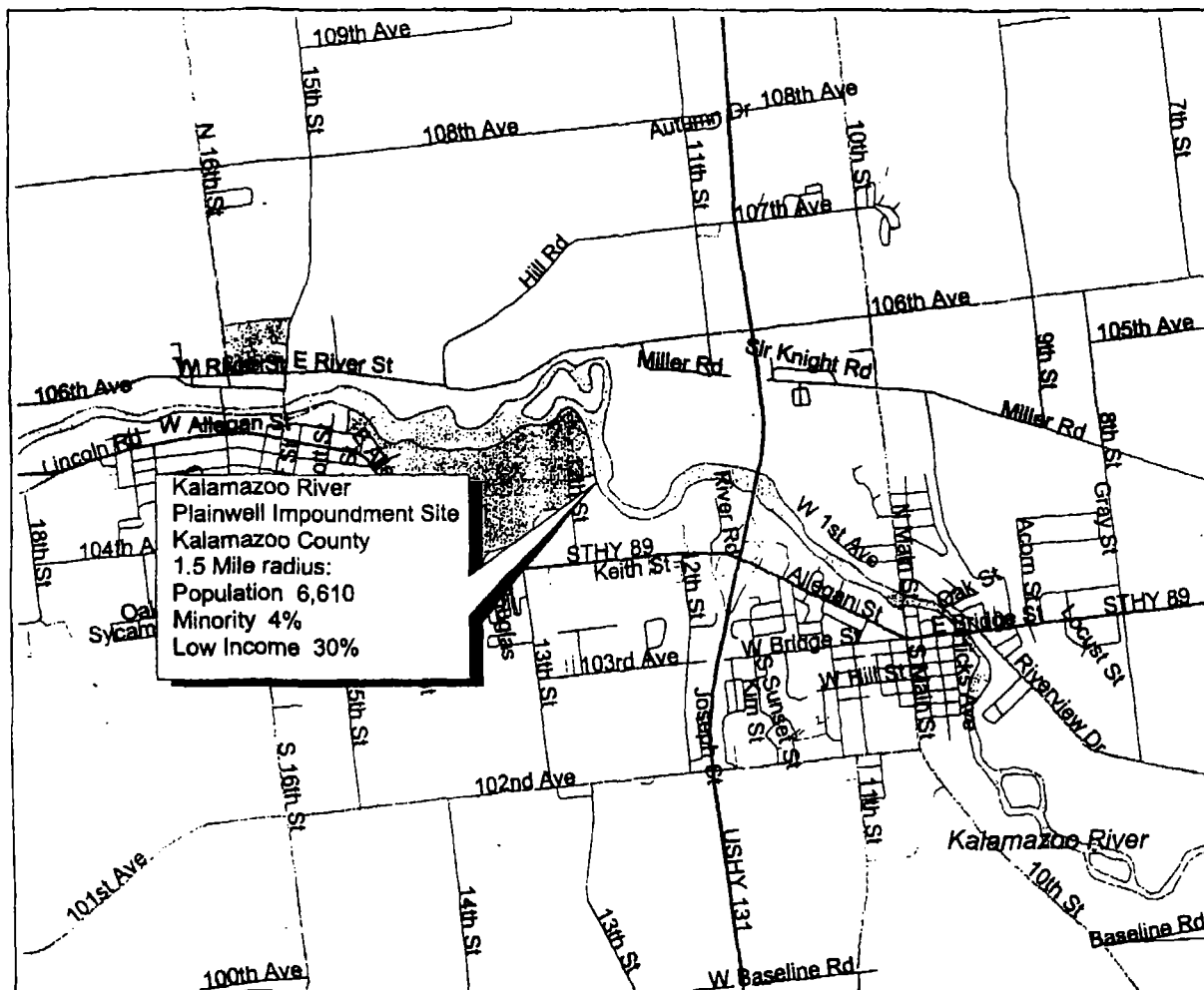
**HAS BEEN REDACTED**

**NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION**



# Region 5 Superfund EJ Analysis

## Kalamazoo River Plainwell Impoundment Site

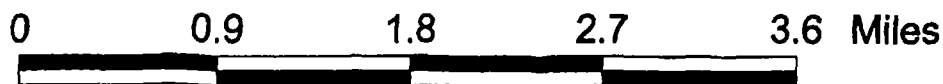


**State of Michigan averages:**  
**Minority: 21%**  
**Low Income: 29%**

**U.S. EPA Region 5  
Environmental Justice Case Criteria  
for State of Michigan**

Minority: 42% or greater

Low Income: 58% or greater



Date of Map: 10/16/08

Sources of Map: Census 2000 Database  
ArcView 3.0

**ATTACHMENT 1**  
**AGREEMENT IN PRINCIPLE**

**HAS BEEN REDACTED**

**PRIVILEGED AND CONFIDENTIAL:**  
**SUBJECT TO FRE 408 AND MEDIATION PRIVILEGE**

## ATTACHMENT 2

### U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

#### ADMINISTRATIVE RECORD FOR ALLIED PAPER/PORTAGE CREEK/KALAMAZOO RIVER SITE OPERABLE UNIT #5 PLAINWELL IMPOUNDMENT KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN

ORIGINAL  
FEBRUARY 12, 2007

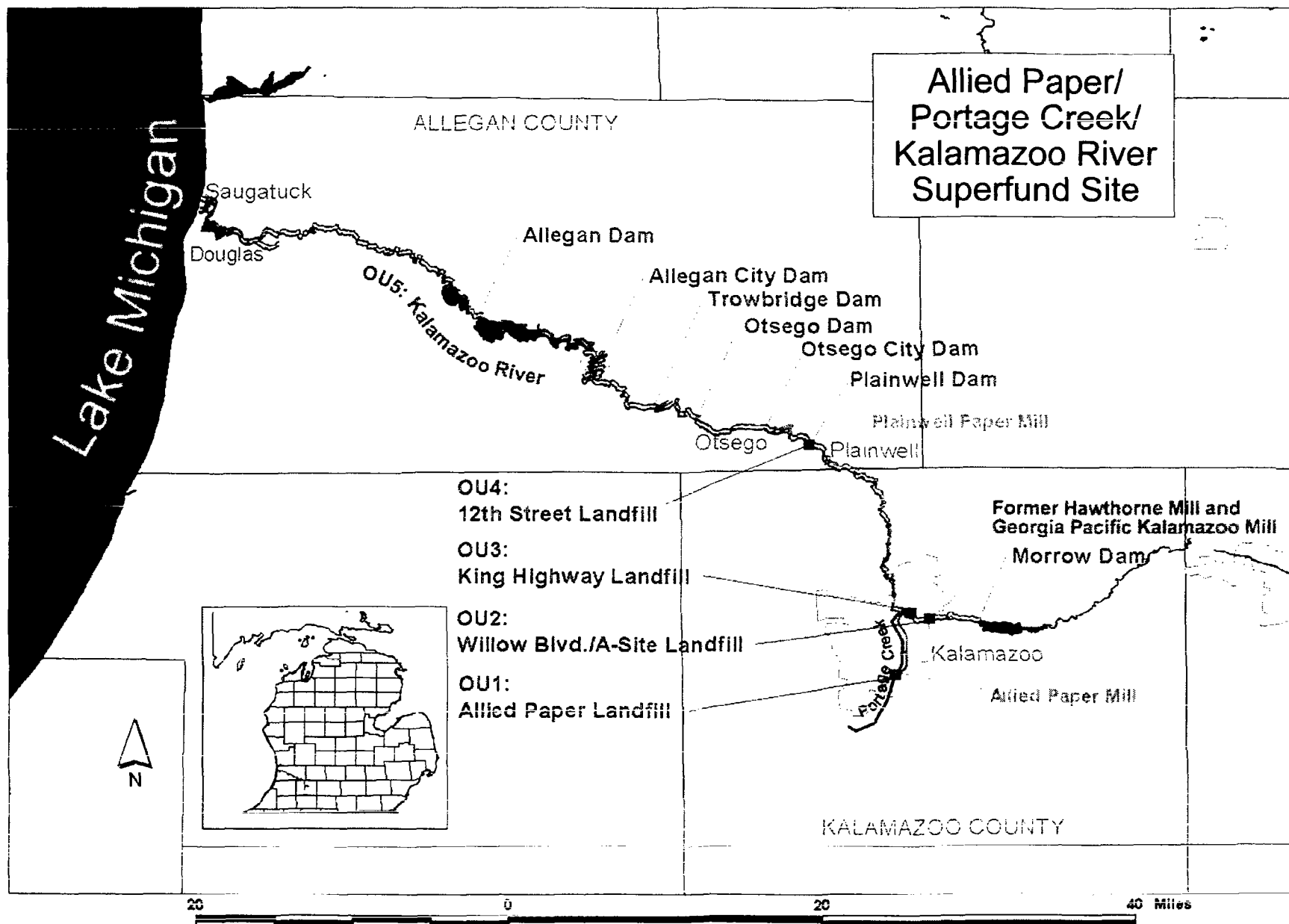
<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	12/23/91	ATSDR	U.S. EPA	Preliminary Health Assessment for the Allied Corp. Kalamazoo Plant	41
2	10/00/00	Blasland, Bouck & Lee, Inc.	U.S. EPA	Feasibility Study Report - Phase I for the Allied Paper/Portage Creek/Kalamazoo River Site (DRAFT FOR STATE AND FEDERAL REVIEW)	407
3	10/00/00	Blasland, Bouck & Lee, Inc.	U.S. EPA	Remedial Investigation Report - Phase I for the Allied Paper/Portage Creek/Kalamazoo River Site (DRAFT FOR STATE AND FEDERAL REVIEW)	653
4	02/01/02	Roy F. Weston, Inc.	U.S. EPA	Removal Assessment Report for the Allied Paper-Kalamazoo River Site	742
5	04/00/03	Camp, Dresser & McKee	U.S. EPA	Baseline Ecological Risk Assessment for the Allied Paper/Portage Creek/Kalamazoo River Site (FINAL REVISED)	140
6	04/00/03	CH2M Hill	U.S. EPA	Remedial Investigation Report for the Allied Paper/Portage Creek/Kalamazoo River Site (U.S. EPA INTERNAL DRAFT)	102
7	05/00/03	Camp, Dresser & McKee	U.S. EPA	Human Health Risk Assessment for the Allied Paper/Portage Creek/Kalamazoo River Site (FINAL REVISED)	109

Allied Paper/Portage Creek/Kalamazoo River AR  
 Operable Unit #5  
 Plainwell Impoundment  
 Original  
 Page 2

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
8	07/25/06	ATSDR	File	Health Consultation: ATSDR Response to Public Advisory Council for Kalamazoo River Area of Concern RAP Comments on the Public Health Assessment for the Allied Paper/Portage Creek/Kalamazoo River Site	18
9	08/28/06	Mediation Parties	File	Plainwell Settlement Agreement in Principle (PRIVILEGED AND CONFIDENTIAL: SUBJECT TO FRE 408 AND MEDIATION PRIVILEGE)	8
10	10/02/06	Blasland, Bouck & Lee, Inc.	File	Design Report (Section 1) for the Plainwell Impoundment (DRAFT MEDIATION CONFIDENTIAL)	4
11	00/00/00	Borries, S., U.S. EPA	Karl, R., U.S. EPA	Enforcement Action Memo- randum: Determination of Need to Conduct a Time-Critical Removal Action at the Allied Paper/Portage Creek/ Kalamazoo River Plain- well Impoundment (PENDING)	

### **Attachment 3 – Description of Site Assessments**

The nature and extent of PCBs within the Plainwell Impoundment were investigated as part of the RI/FS field work conducted by certain PRPs across the Superfund Site in 1993 and 1994. Results of that effort were reported primarily in Technical Memorandum 12 – Former Impoundment Sediment and Geochronologic Dating Investigation (Blasland, Bouck & Lee, Inc. [BBL], 1994a), with some additional floodplain data presented in Technical Memorandum 2 – Results of Phase I TBSA Soil Sampling (BBL, 1994a). Prior to the RI/FS, MDNR had collected analytical and characterization data, which were reported in the Interim Remedial Action for Portions of the Kalamazoo River System – Conceptual Design Technical Memorandum (GZA Donohue, 1990). In 2000, all available analytical and physical characterization data collected to date were summarized and assessed in the Draft Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Remedial Investigation/Feasibility Study (RI/FS Report; BBL, 2000a). (The PRPs' assessment was ultimately disapproved by MDEQ.) Additional data were presented in the Supplement to the Kalamazoo River RI/FS –Phase I (Supplement Report; BBL 2000b), as well as the subsequent 2001 update to the RI report entitled PCB in the Kalamazoo River – Update for Decision Makers (BBL, 2001). In 2001, EPA conducted additional focused sampling of sediments and soils in the Plainwell Impoundment, and the results were presented in the Removal Assessment Report for Allied Paper Kalamazoo River Site, Otsego/Plainwell, Michigan (Weston, 2002). A survey of riverbank profiles was performed in 2003; the results of the survey and riverbank soil PCB data were reported in the Former Plainwell Impoundment Bank Characterization Technical Memorandum (BBL, 2003). The most recent PCB data were generated from pre-design sediment sampling conducted by BBL in 2006. A variety of pre-design studies have also been conducted in 2005 and 2006 to further characterize the Plainwell Impoundment, e.g. site topography, bank stability/disposition, flow hydrodynamics, equipment accessibility, and habitat quality. These pre-design studies will be summarized within the time critical removal action Design Report and its attachments.



### APPENDIX 3

#### Summary of MDEQ's Response Activity Costs to be Forgiven

The costs identified below were incurred in association with the Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site and were deferred from recovery under the 1990 RI/FS AOC entered into by MHLIC, GP, and the State, or their predecessors. These costs will be forgiven from any future cost demand that may be issued by the MDEQ pursuant to Paragraph 6(a)(i) of the Plainwell Settlement AIP:

Period Covered	Amount Invoiced	Amount Deferred	Amount to be Forgiven
1991	\$ 105,928.34	\$ 7,500.21	\$ 7,500.21
1992	\$ 200,052.16	\$ 0.00	\$ 0.00
1993	\$ 235,523.71	\$ 0.00	\$ 0.00
1994	\$ 777,684.33	\$ 0.00	\$ 0.00
1995	\$ 308,049.80	\$ 4,281.60	\$ 4,281.60
1996	\$ 285,585.39	\$ 0.00	\$ 0.00
1997	\$ 261,477.98	\$ 0.00	\$ 0.00
1998	\$ 180,962.51	\$ 0.00	\$ 0.00
1999	\$1,236,854.54	\$ 617,656.60	\$ 499,768.88 <sup>1</sup>
2000	\$2,550,650.00	\$ 258,559.38	\$ 258,559.38
2001	\$2,554,966.98	\$ 729,889.93	\$ 729,889.93
		<b>TOTAL</b>	<b>\$1,500,000.00</b>

<sup>1</sup> The amount of \$499,767.89 consists of CDM contractual costs as follows: \$388,877.97 incurred in performing response activities associated with non-dam related activities and \$160,890.91 incurred in conducting response activities related to the evaluation of the dams.

Appendix 4 is the Work Plan, which was approved by U.S. EPA on February 14, 2007. The removal program has received a hard copy of the final, approved work plan, which is too voluminous to include in this sign-off package. Please contact Sam Borries to see a copy.